Subdirección General de Calidad Asistencial

1. **ARTÍCULO Nº: 3962**

Anguita SM. *Comments on the ESC/ESH Guidelines for the Management of Arterial Hypertension 2013. A Report of the Task Force of the Clinical Practice Guidelines Committee of the Spanish Society of Cardiology*. Rev.Esp.Cardiol. 2013; 66(11): 842-847.

2. **ARTÍCULO Nº: 3963**

Garcia Gonzalez JM. *Contributions of Cardiovascular Mortality to Spanish Life Expectancy From 1980 to 2009*. Rev.Esp.Cardiol. 2013; 66(11): 848-853.

INTRODUCTION AND OBJECTIVES: This article describes the contribution of the decrease in cardiovascular mortality to the increase in life expectancy at birth in Spain from 1980 to 2009. We explain the demographic factors underlying the decrease in mortality from cardiovascular diseases at older ages and the effect of this decrease on lifespan. METHODS: The contribution of these decreases to Spanish life expectancy at birth was calculated using decomposition methods for life expectancy. We calculated standardized mortality rates by sex and 3 causes of death (cerebrovascular disease, ischemic heart disease, and other heart disease) for 3 age groups: 65 to 79 years, 80 to 89 years, and >/=90 years. RESULTS: From 1980 to 2009, life expectancy at birth in Spain increased by more than 6 years for both sexes. The contribution of the decrease in cardiovascular mortality to the total increase in life expectancy at birth was 63% among women and 53% among men. Among the >/=65-year-old age group, this contribution was 93% among women and 87% among men. CONCLUSIONS: The decrease in cardiovascular mortality, mainly at older ages, has been the main contributor to increased Spanish life expectancy at birth during the last 3 decades. Full English text available from:www.revespcardiol.org/en.

3. **ARTÍCULO Nº: 3964**

Rojo-Martinez G, Valdes S, Colomo N, Lucena MI, Gaztambide S, Gomis R et al. *Use of Drugs Related to the Treatment of Diabetes Mellitus and Other Cardiovascular Risk Factors in the Spanish Population. The Di@bet.es Study*. Rev.Esp.Cardiol. 2013; 66(11): 854-863.

INTRODUCTION AND OBJECTIVES: To assess the patterns of use of 8 therapeutic drug groups for the treatment of diabetes mellitus and other cardiovascular risk factors, and to identify sociodemographic and health determinants of their use in the overall Spanish population. METHODS: A representative sample of the Spanish population within the Di@bet.es study, a cross-sectional population-based survey, was included. Study variables: sociodemographic, clinical, and lifestyle data; physical examination, and an oral glucose tolerance test in patients without known diabetes mellitus. Furthermore, patients were systematically queried about current medication use, and 8 pharmacotherapeutic groups were evaluated: lipid-lowering therapy, antihypertensives, oral hypoglycemic agents, insulin, thyroid hormone, uricosurics, psychoactive drugs, and nonsteroidal anti-inflammatory drugs. RESULTS: Sixty-six

percent of the Spanish population was taking at least one medication. Therapeutic drug use was associated with age, independently of the higher prevalence of diabetes mellitus, hypertension, or hyperlipidemia in older patients. Sex disparities were found in the use of lipid-lowering agents, allopurinol, levothyroxine, nonsteroidal anti-inflammatory drugs, and psychoactive drugs. Use of psychoactive drugs was related to education level, work status, physical activity, smoking, and alcohol consumption. Almost 30% of patients with diabetes mellitus were taking 6 or more medications daily. Diabetes mellitus was associated with greater use of antihypertensives, lipid-lowering agents, and nonsteroidal anti-inflammatory drugs. CONCLUSIONS: Age and sex are the most important factors determining therapeutic drug use. Lifestyle patterns and sociocultural factors have an impact only on psychoactive drug use. Diabetes mellitus is associated with greater use of antihypertensives, lipid-lowering agents, and nonsteroidal anti-inflammatory drugs. Full English text available from:www.revespcardiol.org/en.

4. **ARTÍCULO Nº: 3965**

Mancia G, Fagard R, Narkiewicz K, Redon J, Zanchetti A, Bohm M et al. *[ESH/ESC 2013 Guidelines for the management of arterial hypertension]*. Rev.Esp.Cardiol. 2013; 66(11): 880.e1-880.e64.

5. **ARTÍCULO Nº: 3966**

Espin J*[Innovating in pharmaceutical expenditure management: from payment per product to payment for health outcomes]*. Rev.Esp.Salud Publica. 2013; 87(4): 303-306.

6. **ARTÍCULO Nº: 3967**

Bonet PA, Gosalbes S, V, Ridao-Lopez M, Navarro PJ, Navarro CB, Peiro S. *[Dabigatran versus acenocumarol for the prevention of stroke in atrial fibrillation: budget impact analysis in one health department in Spain]*. Rev.Esp.Salud Publica. 2013; 87(4): 331-342.

BACKGROUND: To Estimate, in the context of a Health Department of the Valencia Health Agency, the budgetary impact of the widespread use of dabigatran at doses of 110 and 150 mg in patients with non-valvular atrial fibrillation (AF), regarding the current scenario with acenocoumarol therapy. METHODS: Budget impact analysis of three scenarios of oral anticoagulation use in AF: a) current treatment with acenocoumarol, b) widespread replacement of acenocoumarol for Dabigatran 110 mg and, c) idem at doses of 150 mg. The analysis was conducted from the perspective of the Valencia Health Agency with a time horizon of one year (2009). The effectiveness and adverse effects were extrapolated from the RE-LY study, while prevalence and cost data correspond to the Health Department estimates in 2009. RESULTS: We included 5889 patients (2.4% of the population > 18 years) diagnosed with AF, of which 3726 (63.2%) were treated with acenocoumarol. The total costs of each scenario were euro 1,119,412 (euro 300 patient/year) for acenocoumarol, euro 4,985,095 (euro 1,337 patient/year) for dabigatran 110 and euro 4,981,226 (euro 1,336 patient/year) for dabigatran 150, with a budget impact of 1,037 euros/year per patient shifted from acenocumarol to dabigatran-150. CONCLUSIONS: The high budgetary impact of moving to a scenario of widespread substitution of warfarin for Dabigatran supports the restriction of this therapeutic strategy to subgroups of patients at high risk or difficult control.

7. **ARTÍCULO Nº: 3968**

Moreno Lopez AB, Ballesta RM, Salmeron MD, Navarro SC, Tormo Diaz MJ. *[Influence of double workload in perceived health and health services utilization of immigrants and Murcian natives, Spain]*. Rev.Esp.Salud Publica. 2013; 87(4): 351-366.

BACKGROUND: Gender inequalities in health have been largely documented. The main objective of this study is to assess whether there are gender differences in perceived health and health services utilization, and their relation with double workload in a representative sample of immigrants and Murcian natives. METHODS: We used data from the NHS 2006 and Health and Culture Study, 1,303 immigrants and 1,303 Spanish, both residents in the Region of Murcia. With the combination of reproductive work and paid work we built up the variable 'double workload' (DW). We estimated the prevalence ratio (PR) for positive self-perceived health, chronic morbidity, activity limitation, doctor's visits, hospitalization, emergency and drug use, by origin, using regression methods. Two models were constructed by adding double burden to the basic model adjusted by sociodemographic variables. Analyses were performed between and within sex. RESULTS: After adjusting for DW, no changes were seen in the differences by gender [RP women/men of positive perception health: 0.70 (0.54-0.89) East European; 0.87 (0.79-0.95) autochthonous / chronic morbidity: 1.44 (1.14-1.82) Hispanic; 1.36 (1.19-1.55) autochthonous / activity limitation: 2.23 (1.29-3.83) Hispanic; 1.45 (1.01-2.10) autochthonous / doctor's visits: 1.93 (1.50-2.48) Hispanic; 1.74 (1.06-2.86) Moroccan; 1.32 (1.09-1.59) autochthonous / hospitalization: 1.80 (1.02-3.17) Hispanic], almost the same than unadjusted. Women used more drugs than men. Within sexes, both autochthonous men (1.19; 1.06-1.33) and women (1.18; 1.01-1.40) with shared DW had more positive self-perceived health than those without DW. Hispanic men with DW without assistance: 0.67 (0.47-0.94). CONCLUSIONS: Women have worse health indicators and greater use of health services regardless of origin. Consideration of the double workload does not explain gender inequalities in health.

8. **ARTÍCULO Nº: 3969**

Dennis M, Sandercock P, Murray G, Forbes J. ***Intermittent pneumatic compression in patients with stroke--authors' reply****. Lancet. 2013; 382(9903): 1481-1482.

9. **ARTÍCULO Nº: 3970**

Walker K, Neuburger J, Groene O, Cromwell DA, van der MJ. ***Public reporting of surgeon outcomes: low numbers of procedures lead to false complacency****. Lancet. 2013; 382(9905): 1674-1677.

The English National Health Service published outcome information for individual surgeons for ten specialties in June, 2013. We looked at whether individual surgeons do sufficient numbers of procedures to be able to reliably identify those with poor performance. For some specialties, the number of procedures that a surgeon does each year is low and, as a result, the chance of identifying a surgeon with increased mortality rates is also low. Therefore, public reporting of individual surgeons' outcomes could lead to false complacency. We recommend use of outcomes that are fairly frequent, considering the hospital as the unit of reporting when numbers are low, and avoiding interpretation of no evidence of poor performance as evidence of acceptable performance.

10. **ARTÍCULO Nº: 3971**

Mercer CH, Tanton C, Prah P, Erens B, Sonnenberg P, Clifton S et al. ***Changes in sexual attitudes and lifestyles in Britain through the life course and over time: findings from the National Surveys of Sexual Attitudes and Lifestyles (Natsal)****. Lancet. 2013; 382(9907): 1781-1794.

BACKGROUND: Sexual behaviour and relationships are key components of wellbeing and are affected by social norms, attitudes, and health. We present data on sexual behaviours and attitudes in Britain (England, Scotland, and Wales) from the three National Surveys of Sexual Attitudes and Lifestyles (Natsal). METHODS: We used a multistage, clustered, and stratified probability sample design. Within

each of the 1727 sampled postcode sectors for Natsal-3, 30 or 36 addresses were randomly selected and then assigned to interviewers. To oversample individuals aged 16-34 years, we randomly allocated addresses to either the core sample (in which individuals aged 16-74 years were eligible) or the boost sample (in which only individuals aged 16-34 years were eligible). Interviewers visited all sampled addresses between Sept 6, 2010, and Aug 31, 2012, and randomly selected one eligible individual from each household to be invited to participate. Participants completed the survey in their own homes through computer-assisted face-to-face interviews and self-interview. We analysed data from this survey, weighted to account for unequal selection probabilities and non-response to correct for differences in sex, age group, and region according to 2011 Census figures. We then compared data from participants aged 16-44 years from Natsal-1 (1990-91), Natsal-2 (1999-2001), and Natsal-3. FINDINGS: Interviews were completed with 15,162 participants (6293 men, 8869 women) from 26,274 eligible addresses (57.7%). 82.1% (95% CI 81.0-83.1%) of men and 77.7% (76.7-78.7%) of women reported at least one sexual partner of the opposite sex in the past year. The proportion generally decreased with age, as did the range of sexual practices with partners of the opposite sex, especially in women. The increased sexual activity and diversity reported in Natsal-2 in individuals aged 16-44 years when compared with Natsal-1 has generally been sustained in Natsal-3, but in men has generally not risen further. However, in women, the number of male sexual partners over the lifetime (age-adjusted odds ratio 1.18, 95% CI 1.08-1.28), proportion reporting ever having had a sexual experience with genital contact with another woman (1.69, 1.43-2.00), and proportion reporting at least one female sexual partner in the past 5 years (2.00, 1.59-2.51) increased in Natsal-3 compared with Natsal-2. While reported number of occasions of heterosexual intercourse in the past 4 weeks had reduced since Natsal-2, we recorded an expansion of heterosexual repertoires--particularly in oral and anal sex--over time. Acceptance of same-sex partnerships and intolerance of non-exclusivity in marriage increased in men and women in Natsal-3. INTERPRETATION: Sexual lifestyles in Britain have changed substantially in the past 60 years, with changes in behaviour seeming greater in women than men. The continuation of sexual activity into later life--albeit reduced in range and frequency--emphasises that attention to sexual health and wellbeing is needed throughout the life course. FUNDING: Grants from the UK Medical Research Council and the Wellcome Trust, with support from the Economic and Social Research Council and the Department of Health.

11. **ARTÍCULO Nº: 3972**

Mitchell KR, Mercer CH, Ploubidis GB, Jones KG, Datta J, Field N et al. *Sexual function in Britain: findings from the third National Survey of Sexual Attitudes and Lifestyles (Natsal-3)*. Lancet. 2013; 382(9907): 1817-1829.

BACKGROUND: Despite its importance to sexual health and wellbeing, sexual function is given little attention in sexual health policy. Population-based studies are needed to understand sexual function across the life course. METHODS: We undertook a probability sample survey (the third National Survey of Sexual Attitudes and Lifestyles [Natsal-3]) of 15,162 individuals aged 16-74 years who lived in Britain (England, Scotland, and Wales). Interviews were done between Sept 6, 2010, and Aug 31, 2012. We assessed the distribution of sexual function by use of a novel validated measure (the Natsal-SF), which assessed problems with individual sexual response, sexual function in a relationship context, and self-appraisal of sex life (17 items; 16 items per gender). We assess factors associated with low sexual function (defined as the lowest quintile of distribution of Natsal-SF scores) and the distribution of components of the measure. Participants reporting one or more sexual partner in the past year were given a score on the Natsal-SF (11,690 participants). 4122 of these participants were not in a relationship for all of the past year and we employed the full information maximum likelihood method to handle missing data on four relationship items. FINDINGS: We obtained data for 4913 men and

6777 women for the Natsal-SF. For men and women, low sexual function was associated with increased age, and, after age-adjustment, with depression (adjusted odds ratio 3.70 [95% CI 2.90-4.72] for men and 4.11 [3.36-5.04] for women) and self-reported poor health status (2.63 [1.73-3.98] and 2.41 [1.72-3.39]). Low sexual function was also associated with experiencing the end of a relationship (1.52 [1.18-1.95] and 1.77 [1.44-2.17]), inability to talk easily about sex with a partner (2.36 [1.94-2.88] and 2.82 [2.28-3.48]), and not being happy in the relationship (2.89 [2.32-3.61] and 4.10 [3.39-4.97]). Associations were also noted with engaging in fewer than four sex acts in the past 4 weeks (3.13 [2.58-3.79] and 3.38 [2.80-4.09]), having had same sex partners (2.28 [1.56-3.35] and 1.60 [1.16-2.20]), paying for sex (in men only; 2.62 [1.46-4.71]), and higher numbers of lifetime sexual partners (in women only; 2.12 [1.68-2.67] for ten or more partners). Low sexual function was also associated with negative sexual health outcomes such as experience of non-volitional sex (1.98 [1.14-3.43] and 2.18 [1.79-2.66]) and STI diagnosis (1.50 [1.06-2.11] and 1.83 [1.35-2.47]). Among individuals reporting sex in the past year, problems with sexual response were common (41.6% of men and 51.2% of women reported one or more problem) but self-reported distress about sex lives was much less common (9.9% and 10.9%). For individuals in a sexual relationship for the past year, 23.4% of men and 27.4% of women reported an imbalance in level of interest in sex between partners, and 18.0% of men and 17.1% of women said that their partner had had sexual difficulties. Most participants who did not have sex in the past year were not dissatisfied, distressed, or avoiding sex because of sexual difficulties. INTERPRETATION: Wide variability exists in the distribution of sexual function scores. Low sexual function is associated with negative sexual health outcomes, supporting calls for a greater emphasis on sexual function in sexual health policy and interventions. FUNDING: Grants from the UK Medical Research Council and the Wellcome Trust, with support from the Economic and Social Research Council and the Department of Health.

12. **ARTÍCULO Nº: 3973**
Wolk A, Wang E, Horak B, Cloonan P, Adams M, Moore E et al. *Effect of modest pay-for-performance financial incentive on time-to-discharge summary dictation among medical residents.* Qual.Manag.Health Care. 2013; 22(4): 272-275.

OBJECTIVE: Evaluate the effect of a modest financial incentive on time-to-discharge summary dictation among medicine residents. BACKGROUND: Pay-for-performance incentives are used in a number of health care settings. Studies are lacking on their use with medical residents and other trainees. Timely completion of discharge summaries is necessary for effective follow-up after hospitalization, and residents perform the majority of discharge summary dictations in academic medical centers. METHODS: Medicine residents with the lowest average discharge-to-dictation time during their 1-month inpatient medicine ward rotation were rewarded with a $50 gift card. Discharge data were captured using an autopopulating electronic database. RESULTS: The average discharge-to-dictation time was reduced from 7.44 to 1.84 days, representing a 75.3% decrease. Almost 90% of discharge summary dictations were performed on the day of discharge. CONCLUSION: A modest financial incentive resulted in a marked improvement in the time-to-discharge summary dictation by medicine residents. Pay-for-performance programs may be an effective strategy for improving the quality and efficiency of patient care in academic medical centers.

13. **ARTÍCULO Nº: 3974**
Waddimba AC, Burgess JF, Jr., Young GJ, Beckman HB, Meterko M. *Motivators and hygiene factors among physicians responding to explicit incentives to improve the value of care.* Qual.Manag.Health Care. 2013; 22(4): 276-292.

BACKGROUND: Physician's dissatisfaction is reported to be increasing, especially in primary care. The transition from fee-for-service to outcome-based reimbursements may make matters worse. PURPOSE/OBJECTIVE: To investigate influences of provider attitudes and practice settings on job satisfaction/dissatisfaction during transition to quality-based payment models, we assessed self-reported satisfaction/dissatisfaction with practice in a Rochester (New York)-area physician practice association in the process of implementing pay-for-performance. SUBJECTS/METHODS: We linked cross-sectional data for 215 survey respondents on satisfaction ratings and behavioral attitudes with medical record data on their clinical behavior and practices, and census data on their catchment population. Factors associated with the odds of being satisfied or dissatisfied were determined via predictive multivariable logistic regression modeling. RESULTS/CONCLUSIONS: Dissatisfied physicians were more likely to have larger-than-average patient panels, lower autonomy and/or control, and beliefs that quality incentives were hindering patient care. Satisfied physicians were more likely to have a higher sense of autonomy and control, smaller patient volumes, and a less complex patient mix. Efforts to maintain or improve satisfaction among physicians should focus on encouraging professional autonomy during transitions from volume-based to quality/outcomes-based payment systems. An optimum balance between accountability and autonomy/control might maximize both health care quality and job satisfaction.

14. **ARTÍCULO Nº: 3975**

Andaleeb SS, Kara A. *The structure of service quality perceptions for multiple-encounter services*. Qual.Manag.Health Care. 2013; 22(4): 306-321.

OBJECTIVE: The objective of this study was to examine a complex service environment-hospitals-to suggest how service quality could be reframed and measured for multiple-encounter service situations more effectively. SUBJECTS: In this cross-sectional study, a sample of 371 patients completed the survey instrument. Service quality measures were guided by the literature but allowed to flow from the respondents at the preliminary stage. METHODS: Confirmatory factor analysis, along with structural equation modeling, was used to test the hypothesized relationships among key actors' performance metrics (KAPMs). RESULTS: Patient satisfaction is significantly influenced by perceived service quality based on KAPMs. For multiple-encounter services, service quality dimensions and measures ought to be tied to KAPMs. CONCLUSIONS: Primary actors-ie, doctors-need knowledge and skills about patient psychology, negotiation, handling difficult patients, and, importantly, "putting the customer first." Sensitivity training on such matters should be provided. The secondary actors are the nurses who have more frequent contact with the patients. Nurses need to be perceived as "patient advocates." Effective advocacy begins with prompt and caring services to build trust. The tertiary actors in their support role also ought to be integrated into becoming vital part of the service provided.

15. **ARTÍCULO Nº: 3976**

Harting B, Johnson T, Abrams R, Odwazny R, Hasler S, McNutt R. *An exploratory analysis of the correlation of pain scores, patient satisfaction with relief from pain, and a new measure of pain control on the total dose of opioids in pain care*. Qual.Manag.Health Care. 2013; 22(4): 322-326.

OBJECTIVE: We explored the associations between opioid dose and multiple measures of pain. STUDY DESIGN AND MEASURES: Thirty-two consecutive patients admitted solely for an acute exacerbation of cancer-related pain or for surgery were followed for their entire hospital stay (115 days of pain). For each hospital day, we collected pain scores, the number of pain scores, trends in pain scores, the percentage of time patients had 100% acceptable relief from pain, and the number of times patients

were asked about acceptable pain relief. Finally, we asked those who had 100% relief of pain whether they could have used more pain medicine. Linear regression models were fit to estimate the amount of variation explained (R) in dose of medication, by each pain measurement variable. RESULTS: Nineteen patients with cancer (74 days of pain) and 13 patients undergoing surgery (41 days of pain) were evaluated. Pain scores, the number of pain scores, trends in pain scores, and 100% acceptable relief scores poorly correlated with the use of medication in the linear regression models (R for all models </=0.2). A question about needing more pain medicine explained the greatest amount of variation in opioid dose. CONCLUSIONS: Pain and acceptable relief scores do not adequately reflect the use of medication. A prospective study is needed to further assess the value of additional measures of the adequacy of pain care.

16. **ARTÍCULO Nº: 3977**
Larrabee JH, Bolden LV. ***Defining patient-perceived quality of nursing care***. J.Nurs.Care Qual. 2001; 16(1): 34-60.

Many patient satisfaction instruments are not based on patient perceptions, theoretically limiting their validity. This qualitative study identified good nursing care from the patient's perspective, using a convenience sample of 199 hospitalized adult patients in a public hospital in South Central United States. Content analysis yielded five themes: providing for my needs, treating me pleasantly, caring about me, being competent, and providing prompt care. Similarities and differences were found between these themes and themes identified in other qualitative studies, as well as instruments, for which item generation was based upon qualitative patient data. Implications for providers, administrators, and researchers are discussed.

17. **ARTÍCULO Nº: 3978**
De MS, Gemmel P, Vlerick P, Van RP, Dierckx R. ***Patients' and personnel's perceptions of service quality and patient satisfaction in nuclear medicine***. Eur.J.Nucl.Med.Mol.Imaging. 2002; 29(9): 1109-1117.

Patients' and personnel's perceptions of service quality were analysed to position nuclear medicine organisations in the service triangle theory of Haywood-Farmer [Int J Production and Operations Management 1988; 6:19-29]. After distinguishing the service quality dimensions of nuclear medicine, a comparison was made between the service quality perceptions of patients (n=259) and those of personnel (n=24). We examined the importance of different service quality dimensions by studying their relationship to patient satisfaction. The proposed five dimensions of SERVQUAL, the most commonly used service quality measurement scale, were not confirmed. Patients considered tangibles and assurance as one dimension, while the original empathy dimension was separated into empathy and convenience. Personnel perceived all service quality dimensions as less good than did patients, except for empathy. Results indicated that patients' perception of service quality was correlated with patient satisfaction, especially in terms of reliability and tangibles-assurance. Based on these service quality dimensions, we suggest that nuclear medicine services need to optimise their physical and process component and the technical skills of personnel.

18. **ARTÍCULO Nº: 3979**
Freudenberg LS, Beyer T, Bockisch A. ***Improving perceptions of the quality of service in nuclear medicine***. Eur.J.Nucl.Med.Mol.Imaging. 2003; 30(3): 472

19. **ARTÍCULO Nº: 3980**
Garcia Vicente AM, Soriano CA, Martinez DC, Poblete G, V, Ruiz SS, Cortes RM et al. *[Patient satisfaction as quality indicator in a nuclear medicine department]*. Rev.Esp.Med.Nucl. 2007; 26(3): 146-152.

OBJECTIVE: To assess patient satisfaction and dissatisfaction with a Nuclear Medicine department. MATERIAL AND METHODS: A questionnaire was designed with 9 closed questions, 1 with a numerical scale (1-10) and 1 with an open question for suggestions. The questions included different quality dimensions of the department related with waiting time for the scan, information, facilities, attention manner with department staff and global satisfaction (numerical scale, 1-10). Dissatisfaction was determined by analyzing the written complaints for the last 6 years. RESULTS: A total of 671 questionnaires were obtained, 58 % of those surveyed being women. The mean age of patients was 56.5 (+/- 16.26). The information provided was correct in 81.7 % of cases. Equipment and facilities were correct for 74.5 % of patients. Waiting list and waiting time were correct for 70 % and 66.4 % respectively. The attention manner of the department staff was the most satisfactory dimension (98.7 %). Global satisfaction was positive (> or = 7 out of 10) in 82.8 % of the patients. 29 complaints were received. Most of them were based on waiting list (12) and disagreement with assistance (9). CONCLUSIONS: Global satisfaction was high in most of patients. Waiting time was the dimension with the lowest level of satisfaction and subsidiary of improvement plans. The primary spontaneous complain by our patients was due to the waiting list.

20. **ARTÍCULO Nº: 3981**
Garcia Vicente AM, Soriano CA, Martinez DC, Ruiz SS, Talavera Rubio MP, Poblete G, V et al. *[Study of physician satisfaction as a quality criterion in Nuclear Medicine]*. Rev.Esp.Med.Nucl. 2008; 27(1): 22-28.

OBJECTIVE: To determine the perception and satisfaction level of referring physicians requesting scans as final users of the Nuclear Medicine Department. MATERIAL AND METHODS: A self-administered questionnaire was designed; it was composed of 10 closed questions (5 categorised and 5 with numerical scale) and 3 open questions. The indicators evaluated were: physician's information about available tests, test indications and diagnostic information, accessibility, delay in the examination and reception of the diagnostic report, usefulness of diagnostic information and overall satisfaction with the department. Two hundred and fifteen questionnaires were sent. RESULTS: Seventy eight questionnaires were returned, so the response index was 36.3 %. The 44.6 % of physicians surveyed considered that they had sufficient information about the tests and 59.5 % were satisfied with the indications and diagnostic information. The accessibility was 7 or more out of 10 for 78.5 %. The 64.9 % of physicians considered the delay in performing examinations to be correct but the satisfaction was lower in the delay between performance and reception of the diagnostic report. The diagnostic information was considered useful by 81.9 % and relevant in the management of patients by 70.5 % of the participants surveyed. The overall satisfaction was > or = 7 out of 10 in 86.8 %. CONCLUSIONS: Overall satisfaction was high, although the level of knowledge about available tests and the delay between test performance and report reception could be improved.

21. **ARTÍCULO Nº: 3982**
Kilner E, Sheppard LA. *The role of teamwork and communication in the emergency department: a systematic review*. Int.Emerg.Nurs. 2010; 18(3): 127-137.

The aim of this study was to develop a systematic review using international research to describe the role of teamwork and communication in the emergency department, and its relevance to physiotherapy practice in the emergency department. Searches were conducted of CINAHL, Academic Search Premier, Scopus, Cochrane, PEDro, Medline, Embase, Amed and PubMed. Selection criteria included full-text English language research papers related to teamwork and/or communication based directly in the emergency department, involvement of any profession in the emergency department, publication in peer-reviewed journals, and related to adult emergency services. Studies were appraised using a validated critical appraisal tool. Fourteen eligible studies, all of mid-range quality, were identified. They demonstrated high levels of staff satisfaction with teamwork training interventions and positive staff attitudes towards the importance of teamwork and communication. There is moderate evidence that the introduction of multidisciplinary teams to the ED may be successful in reducing access block, and physiotherapists may play a role in this. The need for teamwork and communication in the ED is paramount, and their roles are closely linked, with the common significant purposes of improving patient safety, reducing clinical errors, and reducing waiting times.

22. **ARTÍCULO Nº: 3983**

Shaikh BT, Rabbani F. *Health management information system: a tool to gauge patient satisfaction and quality of care.* Eastern Mediterranean Health Journal. 2005; 11(1-2): 192-198.

The health management information system (HMIS) is an instrument which could be used to improve patient satisfaction with health services by tracking certain dimensions of service quality. Quality can be checked by comparing perceptions of services delivered with the expected standards. The objective of the HMIS would be to record information on health events and check the quality of services at different levels of health care. The importance of patient assessment is a part of the concept of giving importance to patient's views in improving the quality of health services. Expected benefits include enhancing patient satisfaction through improved communication; greater provider sensitivity towards patients; enhanced community awareness about the quality of services; and overall better use of services in the health system.

23. **ARTÍCULO Nº: 3984**

De MS, Vlerick P, Gemmel P, De BP, Matthys D, Dierckx RA. *Impact of waiting on the perception of service quality in nuclear medicine.* Nucl.Med.Commun. 2005; 26(6): 541-547.

BACKGROUND: This is the first study examining the link between waiting and various dimensions of perceived service quality in nuclear medicine. METHODS: We tested the impact of selected waiting experience variables on the evaluation of service quality, measured using the Servqual tool, of 406 patients in nuclear medicine, with objective and subjective waiting times as co-variates. The sequence of events in service delivery in nuclear medicine (waiting time before injection, waiting time before scanning and total waiting time) is taken into account. RESULTS: Patients underestimated the waiting time before injection and the total waiting time, while overestimated the waiting time before scanning. Our results show that the total subjective waiting time has more impact on the reliability dimension ($R2(adj)=0.148$) than on the other service quality dimensions of Servqual. Providing information about the reasons for delay had a significant main effect on the perception of reliability ($F=9.64$, $P=0.02$). CONCLUSIONS: The study stresses the importance of explaining the causes for delay to increase patients' perceptions of reliability of the nuclear medicine department and contains several findings that should assist service managers to formulate more effective waiting perception strategies.

24. **ARTÍCULO Nº: 3985**

Pai YP, Chary ST. *Dimensions of hospital service quality: a critical review: perspective of patients from global studies* . Int.J.Health Care Qual.Assur. 2013; 26(4): 308-340.

PURPOSE: The purpose of this paper is to review the service quality dimensions established in various studies conducted across the world specifically applied to health care. DESIGN/METHODOLOGY/APPROACH: Studies conducted on quality of care selected from literature databases - Ebsco, Emerald Insight, ABI/Inform - was subjected to a comprehensive in-depth content analysis. FINDINGS: Service quality has been extensively studied with considerable efforts taken to develop survey instruments for measuring purposes. The number of dimensional structure varies across the studies. Self-administered questionnaire dominates in terms of mode of administration adopted in the studies, with respondents ranging from 18 to 85 years. Target sample size ranged from 84-2,000 respondents in self-administered questionnaires and for mail administration ranged from 300-2,600 respondents. Studies vary in terms of the scores used ranging from four to ten-point scale. A total of 27 of the studies have used EFA, 11 studies have used structural equation modelling and eight studies used gap scores. Cronbach's alpha is the most commonly used measure of scale reliability. There is variation in terms of measuring the content, criteria and construct validation among the studies. PRACTICAL IMPLICATIONS: The literature offers dimensions used in assessing patient perceived service quality. The review reveals diversity and a plethora of dimensions and methodology to develop the construct discussed. ORIGINALITY/VALUE: The reported study describes and contrasts a large number of service-quality measurement constructs and highlights the usage of dimensions. The findings are valuable to academics in terms of dimensions and methodology used, approach for analysis; whereas findings are of value to practitioners in terms of the dimensions found in the research and to identify the gap in their setting.

25. **ARTÍCULO Nº: 3986**

Nallamothu BK, Bates ER. *Percutaneous coronary intervention versus fibrinolytic therapy in acute myocardial infarction: is timing (almost) everything?* Am.J.Cardiol. 2003; 92(7): 824-826.

The mortality benefit associated with primary percutaneous coronary intervention in ST-segment elevation myocardial infarction may be lost if door-to-balloon time is delayed by >1 hour as compared with fibrinolytic therapy door-to-needle time. Interventional cardiology laboratories endeavoring to achieve the benefits of primary percutaneous coronary intervention seen in randomized clinical trials should aim to match their short door-to-balloon times.

26. **ARTÍCULO Nº: 3987**

Zimlichman E, Henderson D, Tamir O, Franz C, Song P, Yamin CK et al. *Health care-associated infections: a meta-analysis of costs and financial impact on the US health care system*. JAMA Intern.Med. 2013; 173(22): 2039-2046.

IMPORTANCE: Health care-associated infections (HAIs) account for a large proportion of the harms caused by health care and are associated with high costs. Better evaluation of the costs of these infections could help providers and payers to justify investing in prevention. OBJECTIVE: To estimate costs associated with the most significant and targetable HAIs. DATA SOURCES: For estimation of attributable costs, we conducted a systematic review of the literature using PubMed for the years 1986 through April 2013. For HAI incidence estimates, we used the National Healthcare Safety Network of the Centers for Disease Control and Prevention (CDC). STUDY SELECTION: Studies performed outside the United States were excluded. Inclusion criteria included a robust method of

comparison using a matched control group or an appropriate regression strategy, generalizable populations typical of inpatient wards and critical care units, methodologic consistency with CDC definitions, and soundness of handling economic outcomes. DATA EXTRACTION AND SYNTHESIS: Three review cycles were completed, with the final iteration carried out from July 2011 to April 2013. Selected publications underwent a secondary review by the research team. MAIN OUTCOMES AND MEASURES: Costs, inflated to 2012 US dollars. RESULTS: Using Monte Carlo simulation, we generated point estimates and 95% CIs for attributable costs and length of hospital stay. On a per-case basis, central line-associated bloodstream infections were found to be the most costly HAIs at $45,814 (95% CI, $30,919-$65,245), followed by ventilator-associated pneumonia at $40,144 (95% CI, $36,286-$44,220), surgical site infections at $20,785 (95% CI, $18,902-$22,667), Clostridium difficile infection at $11,285 (95% CI, $9118-$13,574), and catheter-associated urinary tract infections at $896 (95% CI, $603-$1189). The total annual costs for the 5 major infections were $9.8 billion (95% CI, $8.3-$11.5 billion), with surgical site infections contributing the most to overall costs (33.7% of the total), followed by ventilator-associated pneumonia (31.6%), central line-associated bloodstream infections (18.9%), C difficile infections (15.4%), and catheter-associated urinary tract infections (<1%). CONCLUSIONS AND RELEVANCE: While quality improvement initiatives have decreased HAI incidence and costs, much more remains to be done. As hospitals realize savings from prevention of these complications under payment reforms, they may be more likely to invest in such strategies.

27. **ARTÍCULO Nº: 3988**

Likosky DS, Zhou W, Malenka DJ, Borden WB, Nallamothu BK, Skinner JS. *Growth in medicare expenditures for patients with acute myocardial infarction: a comparison of 1998 through 1999 and 2008*. JAMA Intern.Med. 2013; 173(22): 2055-2061.

IMPORTANCE: Medicare expenditures continue to grow rapidly, but the reasons are uncertain. OBJECTIVE: To compare expenditures from 1998 through 1999 and 2008 for Medicare beneficiaries hospitalized for acute myocardial infarction (AMI). DESIGN, SETTING, AND PARTICIPANTS: Cross-sectional analysis of a random 20% sample of fee-for-service Medicare beneficiaries admitted with AMI from 1998 through 1999 (n = 105,074) and a 100% sample for 2008 (n = 212,329). MAIN OUTCOMES AND MEASURES: Per-beneficiary expenditures, standardized for price and adjusted for risk and inflation. Expenditures were measured across 4 periods: overall (index admission to 1 year), index (within the index admission), early (postindex admission to 30 days), and late (31-365 days). RESULTS Compared with the subjects from 1998 through 1999, those in 2008 were older and had more comorbidities but slightly less ischemic heart disease and cerebrovascular disease. Although there was a 19.2% decline in the rate of hospitalizations for AMI, overall expenditures per patient increased by 16.5% (absolute difference, $6094). Of the total risk-adjusted increase in expenditures, 25.6% occurred within 30 days (22.0% attributed to the index admission), and 74.4% happened 31 to 365 days after the index admission. Spending per beneficiary within 30 days increased by $1560 (7.5%), and spending between 31 and 365 days increased by $4535 (28.0%). Expenditures for skilled nursing facilities, hospice, home health agency, durable medical equipment, and outpatient care nearly doubled 31 to 365 days after admission. Mortality within 1 year declined from 36.0% in 1998 through 1999 to 31.7% in 2008; of the decline, 3.3% was in the 30 days following admission, and 1.0% was in days 31 to 365. CONCLUSIONS AND RELEVANCE: Between 1998 and 2008, Medicare expenditures per patient with an AMI substantially increased, with about three-fourths of the increase in expenditures occurring 31 to 365 days after the date of hospital admission. Although current bundled payment models may contain expenditures within 30 days of an AMI, they do not contain spending beyond 30 days.

28. **ARTÍCULO Nº: 3989**
Johnston CB. *Patient satisfaction and its discontents*. JAMA Intern.Med. 2013; 173(22): 2025-2026.

29. **ARTÍCULO Nº: 3990**
Jha AK. *Going after the money: curbing the rapid growth in medicare expenditures for medical services more than 30 days after hospital admission*. JAMA Intern.Med. 2013; 173(22): 2061-2062.

30. **ARTÍCULO Nº: 3991**
Cohen A, Assyag P, Boyer-Chatenet L, Cohen-Solal A, Perdrix C, Dalichampt M et al. *An education program for risk factor management after an acute coronary syndrome: a randomized clinical trial*. JAMA Intern.Med. 2014; 174(1): 40-48.

IMPORTANCE: Lifestyle improvements after an acute coronary syndrome reduce cardiovascular risk but are difficult to achieve. OBJECTIVE: To determine whether a nurse-led or dietician-led cardiovascular risk factor education program would improve risk factor reduction over the long term after an acute coronary syndrome. DESIGN, SETTING, AND PARTICIPANTS: The Reseau Insuffisance Cardiaque (RESICARD) PREVENTION: study was a 2-arm, parallel-group, multicenter, randomized clinical trial at 6 tertiary care hospitals in France. Patients hospitalized in a cardiac intensive care unit for an acute coronary syndrome with at least 1 lifestyle risk factor (current smoking, sedentary lifestyle, or overweight or obesity) were randomized according to a computer-generated list with sequentially numbered, sealed envelopes. INTERVENTION: Patients underwent an education program in a unique non-hospital setting (a House of Education) or were treated according to physicians' usual standard of care. MAIN OUTCOMES AND MEASURES: The primary outcome was a composite that included at least 1 of the following: smoking cessation, at least 3 hours per week of physical activity, at least 5% reduction in weight, and at least 4% reduction in waist circumference. Patients were followed up for 1 year. An intent-to-treat analysis was performed. RESULTS From June 21, 2006, to July 30, 2008, a total of 251 patients were randomized to the House of Education and 251 to conventional care. The 2 groups did not differ significantly at 12 months in the primary composite outcome (51.8% vs 49.8% success rate; adjusted relative risk [aRR], 1.11; 95% CI, 0.90-1.37) or with correction of all risk factors (aRR, 1.22; 95% CI, 0.89-1.66). Similarly, the 2 groups did not differ by physical activity (aRR, 1.05; 95% CI, 0.92-1.21), smoking cessation (aRR, 0.99; 95% CI, 0.87-1.13), and weight or waist reduction (aRR, 1.07; 95% CI, 0.84-1.36). CONCLUSIONS AND RELEVANCE: Compared with conventional care, the House of Education did not result in superior improvement in lifestyle-related cardiovascular risk factors after an acute coronary syndrome. TRIAL REGISTRATION: clinicaltrials.gov Identifier: NCT00337480.

31. **ARTÍCULO Nº: 3992**
Than M, Aldous S, Lord SJ, Goodacre S, Frampton CM, Troughton R et al. *A 2-hour diagnostic protocol for possible cardiac chest pain in the emergency department: a randomized clinical trial*. JAMA Intern.Med. 2014; 174(1): 51-58.

IMPORTANCE: Patients with chest pain represent a high health care burden, but it may be possible to identify a patient group with a low short-term risk of adverse cardiac events who are suitable for early discharge. OBJECTIVE: To compare the effectiveness of a rapid diagnostic pathway with a standard-care diagnostic pathway for the assessment of patients with possible cardiac chest pain in a usual clinical practice setting. DESIGN, SETTING, AND PARTICIPANTS: A single-center, randomized parallel-group trial with blinded outcome assessments was conducted in an academic general and tertiary hospital. Participants included adults with acute chest pain consistent with acute coronary

syndrome for whom the attending physician planned further observation and troponin testing. Patient recruitment occurred from October 11, 2010, to July 4, 2012, with a 30-day follow-up. INTERVENTIONS: An experimental pathway using an accelerated diagnostic protocol (Thrombolysis in Myocardial Infarction score, 0; electrocardiography; and 0- and 2-hour troponin tests) or a standard-care pathway (troponin test on arrival at hospital, prolonged observation, and a second troponin test 6-12 hours after onset of pain) serving as the control. MAIN OUTCOMES AND MEASURES: Discharge from the hospital within 6 hours without a major adverse cardiac event occurring within 30 days. RESULTS: Fifty-two of 270 patients in the experimental group were successfully discharged within 6 hours compared with 30 of 272 patients in the control group (19.3% vs 11.0%; odds ratio, 1.92; 95% CI, 1.18-3.13; P = .008). It required 20 hours to discharge the same proportion of patients from the control group as achieved in the experimental group within 6 hours. In the experimental group, 35 additional patients (12.9%) were classified as low risk but admitted to an inpatient ward for cardiac investigation. None of the 35 patients received a diagnosis of acute coronary syndrome after inpatient evaluation. CONCLUSIONS AND RELEVANCE: Using the accelerated diagnostic protocol in the experimental pathway almost doubled the proportion of patients with chest pain discharged early. Clinicians could discharge approximately 1 of 5 patients with chest pain to outpatient follow-up monitoring in less than 6 hours. This diagnostic strategy could be easily replicated in other centers because no extra resources are required. TRIAL REGISTRATION: anzctr.org.au Identifier: ACTRN12610000766011.

32. **ARTÍCULO Nº: 3993**

Montori VM, Brito JP, Murad MH. *The optimal practice of evidence-based medicine: incorporating patient preferences in practice guidelines.* JAMA. 2013; 310(23): 2503-2504.

33. **ARTÍCULO Nº: 3994**

Chen J, Hsieh AF, Dharmarajan K, Masoudi FA, Krumholz HM. *National trends in heart failure hospitalization after acute myocardial infarction for Medicare beneficiaries: 1998-2010.* Circulation. 2013; 128(24): 2577-2584.

BACKGROUND: Previous studies have reported conflicting findings regarding how the incidence of heart failure (HF) after acute myocardial infarction (AMI) has changed over time, and data on contemporary national trends are sparse. METHODS AND RESULTS: Using a complete national sample of 2 789 943 AMI hospitalizations of Medicare fee-for-service beneficiaries from 1998 through 2010, we evaluated annual changes in the incidence of subsequent HF hospitalization and mortality using Poisson and survival analysis models. The number of patients hospitalized for HF within 1 year after AMI declined modestly from 16.1 per 100 person-years in 1998 to 14.2 per 100 person years in 2010 (P<0.001). After adjusting for demographic factors, a relative 14.6% decline for HF hospitalizations after AMI was observed over the study period (incidence risk ratio, 0.854; 95% confidence interval, 0.809-0.901). Unadjusted 1-year mortality following HF hospitalization after AMI was 44.4% in 1998, which decreased to 43.2% in 2004 to 2005, but then increased to 45.5% by 2010. After adjusting for demographic factors and clinical comorbidities, this represented a 2.4% relative annual decline (hazard ratio, 0.976; 95% confidence interval, 0.974-0.978) from 1998 to 2007, but a 5.1% relative annual increase from 2007 to 2010 (hazard ratio, 1.051; 95% confidence interval, 1.039-1.064). CONCLUSIONS: In a national sample of Medicare beneficiaries, HF hospitalization after AMI decreased from 1998 to 2010, which may indicate improvements in the management of AMI. In contrast, survival after HF following AMI remains poor, and has worsened from 2007 to 2010, demonstrating that challenges still remain for the treatment of this high-risk condition after AMI.

34. **ARTÍCULO Nº: 3995**

Shah SM, Carey IM, Harris T, DeWilde S, Victor CR, Cook DG. *Impact of partner bereavement on quality of cardiovascular disease management*. Circulation. 2013; 128(25): 2745-2753.

BACKGROUND: Bereavement is a period of increased risk of cardiovascular death. There is limited understanding of the potential contribution of quality of cardiovascular disease management to this increased risk. METHODS AND RESULTS: In a UK primary-care database, 12 722 older individuals with preexisting cardiovascular disease (coronary heart disease, hypertension, diabetes mellitus, stroke) and a partner bereavement were matched with a non-bereaved control group (n=33 911). We examined key routine annual process measures of care in the year before and after bereavement and cardiovascular medication prescribing (lipid-lowering, antiplatelet, renin-angiotensin system drugs). Odds ratios for change after bereavement compared with the change in non-bereaved matched controls are presented. In the bereaved, uptake of all annual measures was lower in the year before bereavement, with improvement in the year after, whereas in the controls, uptake was relatively stable. The odds ratio for change was 1.30 (95% confidence interval, 1.15-1.46) for cholesterol measurement and 1.40 (95% confidence interval, 1.22-1.61) for blood pressure measurement. For all medication, there was a transient fall in prescribing in the peri-bereavement period lasting until about 3 months after bereavement. The odds ratio for at least 80% prescription coverage in the 30 days after bereavement was 0.80 (95% confidence interval, 0.73-0.88) for lipid-lowering medication and 0.82 (95% confidence interval, 0.74-0.91) for antiplatelet medication compared with the change in non-bereaved individuals. CONCLUSIONS: Lower uptake of key cardiovascular care measures in the year before bereavement and reduced medication coverage after bereavement may contribute to increased cardiovascular risk. Clinicians need to ensure that quality of cardiovascular care is maintained in the pre- and post-bereavement periods.

35. **ARTÍCULO Nº: 3996**

Roach RE, Lijfering WM, Rosendaal FR, Cannegieter SC, le CS. *Sex difference in risk of second but not of first venous thrombosis: paradox explained*. Circulation. 2014; 129(1): 51-56.

BACKGROUND: The risk of recurrent venous thrombosis is 2-fold higher in men than in women. In contrast, no such sex difference in the risk of first venous thrombosis has been reported. We hypothesized that, for a first event, a risk difference between the sexes is masked by female exposure to reproductive factors (oral contraception, pregnancy/puerperium, and postmenopausal hormone therapy). METHODS AND RESULTS: From the Multiple Environmental and Genetic Assessment of Risk Factors for Venous Thrombosis (MEGA) study, a population-based case-control study on risk factors for venous thrombosis, 2915 patients with a first venous thrombosis and their partners as control subjects were included. Odds ratios and 95% confidence intervals for first venous thrombosis were assessed in men compared with women without reproductive risk factors by use of conditional logistic regression. Analyses were stratified in 10-year age categories to account for the variation in exposure to reproductive risk factors over different age groups and adjusted for body mass index and smoking. Overall, men had a 2.1-fold (95% confidence interval, 1.9-2.4) increased risk of first venous thrombosis compared with women without reproductive risk factors. Similar results were found when 10-year age categories were viewed separately. Adjustment for body mass index and smoking and exclusion of cancer patients did not materially affect the results. CONCLUSIONS: When female reproductive risk factors are taken into account, the risk of a first venous thrombosis is twice as high in men as in women. These findings are in line with previous studies on recurrent venous thrombosis and may have implications for future treatment and prevention strategies.

36. **ARTÍCULO Nº: 3997**

Sheppard JP, Fletcher K, McManus RJ, Mant J. *Missed opportunities in prevention of cardiovascular disease in primary care: a cross-sectional study*. Br.J.Gen.Pract. 2014; 64(618): e38-e46.

BACKGROUND Screening cardiovascular disease (CVD) risk is an important part of CVD prevention. The success of screening is dependent on the rigour with which treatments are subsequently prescribed. AIM To establish the extent to which treatment conforms to guidelines. DESIGN AND SETTING Cross-sectional study of anonymised patient records from 19 general practices in the UK. METHOD Data relating to patient characteristics, including CVD risk factors, risk score and prescribed medication were extracted. CVD risk (thus eligibility for cholesterol and blood pressure-lowering treatment) was calculated using the Framingham equation. Guideline adherence was defined with descriptive statistics and comparisons by age, sex and disease were made using chi(2) tests. RESULTS Of the 34 975 patients (aged 40-74 years) included in this study, 2550 (7%) patients had existing CVD and 12 349 (35%) had a calculable CVD risk or were on treatment. CVD risk was formally assessed in 8390 (24%) patients. Approximately 7929 (64%) patients eligible for primary prevention therapy were being treated appropriately for their CVD risk. Guideline adherence was higher in younger patients (6284 [69%] aged 40-64 years versus 1645 [50%] aged 65-74 years, P<0.001) and in females (4334 [69%] females versus 3595 [59%] males, P<0.001). There was no difference in guideline adherence between patients where CVD risk had been recorded and those where CVD was calculable. Guideline adherence in patients with existing CVD was highest in patients with ischaemic heart disease (866 [ischaemic heart disease], 52%, versus 288 [stroke], 46%, versus 276 [other CVD], 39%; P<0.001). CONCLUSION There is scope for improvement in assessment and treatment for prevention of CVD in clinical practice. Increasing the uptake of evidence-based treatments would improve the cost-effectiveness of CVD risk screening programmes.

37. **ARTÍCULO Nº: 3998**

Si S, Moss JR, Sullivan TR, Newton SS, Stocks NP. *Effectiveness of general practice-based health checks: a systematic review and meta-analysis*. Br.J.Gen.Pract. 2014; 64(618): e47-e53.

BACKGROUND A recent review concluded that general health checks fail to reduce mortality in adults. AIM This review focuses on general practice-based health checks and their effects on both surrogate and final outcomes. DESIGN AND SETTING Systematic search of PubMed, Embase, and the Cochrane Central Register of Controlled Trials. METHOD Relevant data were extracted from randomised trials comparing the health outcomes of general practice-based health checks versus usual care in middle-aged populations. RESULTS Six trials were included. The end-point differences between the intervention and control arms in total cholesterol (TC), systolic and diastolic blood pressure (SBP, DBP), and body mass index (BMI) were -0.13 mmol/l (95% confidence interval [CI] = -0.19 to -0.07), -3.65 mmHg (95% CI = -6.50 to -0.81), -1.79 mmHg (95% CI = -2.93 to -0.64), and -0.45 kg/m(2) (95% CI = -0.66 to -0.24), respectively. The odds of a patient remaining at 'high risk' with elevated TC, SBP, DBP, BMI or continuing smoking were 0.63 (95% CI = 0.50 to 0.79), 0.59 (95% CI = 0.28 to 1.23), 0.63 (95% CI = 0.53 to 0.74), 0.89 (95% CI = 0.81 to 0.98), and 0.91 (95% CI = 0.82 to 1.02), respectively. There was little evidence of a difference in total mortality (OR 1.03, 95% CI = 0.90 to 1.18). Higher CVD mortality was observed in the intervention group (OR 1.30, 95% CI = 1.02 to 1.66). CONCLUSION General practice-based health checks are associated with statistically significant, albeit clinically small, improvements in surrogate outcome control, especially among high-risk patients. Most studies were not originally designed to assess mortality.

38. **ARTÍCULO Nº: 3999**

Murphy DR, Laxmisan A, Reis BA, Thomas EJ, Esquivel A, Forjuoh SN et al. *Electronic health record-based triggers to detect potential delays in cancer diagnosis*. BMJ Qual.Saf. 2014; 23(1): 8-16.

BACKGROUND: Delayed diagnosis of cancer can lead to patient harm, and strategies are needed to proactively and efficiently detect such delays in care. We aimed to develop and evaluate 'trigger' algorithms to electronically flag medical records of patients with potential delays in prostate and colorectal cancer (CRC) diagnosis. METHODS: We mined retrospective data from two large integrated health systems with comprehensive electronic health records (EHR) to iteratively develop triggers. Data mining algorithms identified all patient records with specific demographics and a lack of appropriate and timely follow-up actions on four diagnostic clues that were newly documented in the EHR: abnormal prostate-specific antigen (PSA), positive faecal occult blood test (FOBT), iron-deficiency anaemia (IDA), and haematochezia. Triggers subsequently excluded patients not needing follow-up (eg, terminal illness) or who had already received appropriate and timely care. Each of the four final triggers was applied to a test cohort, and chart reviews of randomly selected records identified by the triggers were used to calculate positive predictive values (PPV). RESULTS: The PSA trigger was applied to records of 292 587 patients seen between 1 January 2009 and 31 December 2009, and the CRC triggers were applied to 291 773 patients seen between 1 March 2009 and 28 February 2010. Overall, 1564 trigger positive patients were identified (426 PSA, 355 FOBT, 610 IDA and 173 haematochezia). Record reviews revealed PPVs of 70.2%, 66.7%, 67.5%, and 58.3% for the PSA, FOBT, IDA and haematochezia triggers, respectively. Use of all four triggers at the study sites could detect an estimated 1048 instances of delayed or missed follow-up of abnormal findings annually and 47 high-grade cancers. CONCLUSIONS: EHR-based triggers can be used successfully to flag patient records lacking follow-up of abnormal clinical findings suspicious for cancer.

39. **ARTÍCULO Nº: 4000**

O'Cathain A, Knowles E, Maheswaran R, Pearson T, Turner J, Hirst E et al. *A system-wide approach to explaining variation in potentially avoidable emergency admissions: national ecological study*. BMJ Qual.Saf. 2014; 23(1): 47-55.

BACKGROUND: Some emergency admissions can be avoided if acute exacerbations of health problems are managed by the range of health services providing emergency and urgent care. AIM: To identify system-wide factors explaining variation in age sex adjusted admission rates for conditions rich in avoidable admissions. DESIGN: National ecological study. SETTING: 152 emergency and urgent care systems in England. METHODS: Hospital Episode Statistics data on emergency admissions were used to calculate an age sex adjusted admission rate for conditions rich in avoidable admissions for each emergency and urgent care system in England for 2008-2011. RESULTS: There were 3 273 395 relevant admissions in 2008-2011, accounting for 22% of all emergency admissions. The mean age sex adjusted admission rate was 2258 per year per 100 000 population, with a 3.4-fold variation between systems (1268 and 4359). Factors beyond the control of health services explained the majority of variation: unemployment rates explained 72%, with urban/rural status explaining further variation (R^2=75%). Factors related to emergency departments, hospitals, emergency ambulance services and general practice explained further variation (R^2=85%): the attendance rate at emergency departments, percentage of emergency department attendances converted to admissions, percentage of emergency admissions staying less than a day, percentage of emergency ambulance calls not transported to hospital and perceived access to general practice within 48 h. CONCLUSIONS: Interventions to reduce avoidable admissions should be targeted at deprived communities. Better use

of emergency departments, ambulance services and primary care could further reduce avoidable emergency admissions.

40. **ARTÍCULO Nº: 4001**

Ginsburg LR, Tregunno D, Norton PG, Mitchell JI, Howley H. *'Not another safety culture survey': using the Canadian patient safety climate survey (Can-PSCS) to measure provider perceptions of PSC across health settings*. BMJ Qual.Saf. 2014; 23(2): 162-170.

BACKGROUND: The importance of a strong safety culture for enhancing patient safety has been stated for over a decade in healthcare. However, this complex construct continues to face definitional and measurement challenges. Continuing improvements in the measurement of this construct are necessary for enhancing the utility of patient safety climate surveys (PSCS) in research and in practice. This study examines the revised Canadian PSCS (Can-PSCS) for use across a range of care settings. METHODS: Confirmatory factor analytical approaches are used to extensively test the Can-PSCS. Initial and cross-validation samples include 13 126 and 6324 direct care providers from 119 and 35 health settings across Canada, respectively. RESULTS: Results support a parsimonious model of direct care provider perceptions of patient safety climate (PSC) with 19 items in six dimensions: (1) organisational leadership support for safety; (2) incident follow-up; (3) supervisory leadership for safety; (4) unit learning culture; (5) enabling open communication I: judgement-free environment; (6) enabling open communication II: job repercussions of error. Results also support the validity of the Can-PSCS across a range of care settings. CONCLUSIONS: The Can-PSCS has several advantages: (1) it is a theory-based instrument with a small number of actionable dimensions central to the construct of PSC; (2) it has robust psychometric properties; (3) it is validated for use across a range of care settings, therefore suitable for use in regionalised health delivery systems and can help to raise expectations about acceptable levels of PSC across the system; (4) it has been tested in a publicly funded universal health insurance system and may be suitable for similar international systems.

41. **ARTÍCULO Nº: 4002**

Hsiao CJ, Marsteller JA, Simon AE. *Electronic medical record features and seven quality of care measures in physician offices*. Am.J.Med.Qual. 2014; 29(1): 44-52.

The effect of electronic medical records (EMRs) on quality of care in physicians' offices is uncertain. This study used the 2008-2009 National Ambulatory Medical Care Survey to examine the relationship between EMRs features and quality in physician offices. The relationship between selected EMRs features and 7 quality measures was evaluated by testing 25 associations in multivariate models. Significant relationships include reminders for guideline-based interventions or screening tests associated with lower odds of inappropriate urinalysis and prescription of antibiotics for upper respiratory infection (URI), prescription order entry associated with lower odds of prescription of antibiotics for URI, and patient problem list associated with higher odds of inappropriate prescribing for elderly patients. EMRs system level was associated with lower odds of blood pressure check, inappropriate urinalysis, and prescription of antibiotics for URI compared with no EMRs. The results show both positive and inverse relationships between EMRs features and quality of care.

42. **ARTÍCULO Nº: 4003**

Gordon J, Sheppard LA, Anaf S. *The patient experience in the emergency department: A systematic synthesis of qualitative research*. Int.Emerg.Nurs. 2010; 18(2): 80-88.

The aim of this study was to systematically review qualitative literature published between 1990 and 2006 exploring the patient experience within the emergency department (ED) with the intent of describing what factors influence the patient experience. Twelve articles were retrieved following combination of key words using five databases. The overarching categories developed from this integration of literature were; emotional impact of emergency, staff-patient interactions, waiting, family in the emergency department, and emergency environment. The patient experience issue given most emphasis by the articles under review was the caring or lack of caring regarding the patients' psychosocial and emotional needs. This was in contrast to the culture of the ED which emphasised "medical-technical" skill and efficiency. Satisfaction studies need to understand many factors and influences, qualitative methodologies have the ability to do so.

43. **ARTÍCULO Nº: 4004**
Jones SS, Rudin RS, Perry T, Shekelle PG. *Health information technology: an updated systematic review with a focus on meaningful use*. Ann.Intern.Med. 2014; 160(1): 48-54.

BACKGROUND: Incentives offered by the U.S. government have spurred marked increases in use of health information technology (IT). PURPOSE: To update previous reviews and examine recent evidence that relates health IT functionalities prescribed in meaningful use regulations to key aspects of health care. DATA SOURCES: English-language articles in PubMed from January 2010 to August 2013. STUDY SELECTION: 236 studies, including pre-post and time-series designs and clinical trials that related the use of health IT to quality, safety, or efficiency. DATA EXTRACTION: Two independent reviewers extracted data on functionality, study outcomes, and context. DATA SYNTHESIS: Fifty-seven percent of the 236 studies evaluated clinical decision support and computerized provider order entry, whereas other meaningful use functionalities were rarely evaluated. Fifty-six percent of studies reported uniformly positive results, and an additional 21% reported mixed-positive effects. Reporting of context and implementation details was poor, and 61% of studies did not report any contextual details beyond basic information. LIMITATION: Potential for publication bias, and evaluated health IT systems and outcomes were heterogeneous and incompletely described. CONCLUSION: Strong evidence supports the use of clinical decision support and computerized provider order entry. However, insufficient reporting of implementation and context of use makes it impossible to determine why some health IT implementations are successful and others are not. The most important improvement that can be made in health IT evaluations is increased reporting of the effects of implementation and context. PRIMARY FUNDING SOURCE: Office of the National Coordinator.

44. **ARTÍCULO Nº: 4005**
Oliva-Moreno J, randa-Reneo I, Vilaplana-Prieto C, Gonzalez-Dominguez A, Hidalgo-Vega A. *Economic valuation of informal care in cerebrovascular accident survivors in Spain*. BMC.Health Serv.Res. 2013; 13: 508

BACKGROUND: Cerebrovascular diseases are the second leading cause of death worldwide and one of the health conditions which demand the highest level of social services. The aim of this study was to estimate the social cost of non-professional (informal) care provided to survivors of cerebrovascular accidents (CVA) with some type of disability in Spain. METHODS: We obtained data from the 2008 Survey on Disability, Independent Living and Dependency (EDAD-08) on the main characteristics of individuals who provide informal care to survivors of CVAs in Spain. We estimated the cost of substituting informal care in favor of formal care provided by professional caregivers (proxy good method) and performed a statistical analysis of the relationship between degree of dependency and number of care hours provided using ordinary least squares regression. RESULTS: The number of

disabled people diagnosed with CVA totaled 1,975 (329,544 people when extrapolating to the national population using the elevation factor provided by EDAD-08). Of these, 1,221 individuals (192,611 people extrapolated to the national population) received at least one hour of informal care per week. The estimated hours of informal care provided in 2008 amounted to 852 million. The economic valuation of the time of informal care ranges from 6.53 billion euros (at 7.67 euros/hour) to 10.83 billion euros (when calculating each hour of care at 12.71 euros). The results of our statistical analysis highlight the importance of degree of dependency in explaining differences in the number of hours of informal care provided. CONCLUSIONS: The results of our study reveal the high social cost of cerebrovascular accidents in Spain. In addition, evidence is presented of a correlation between higher degree of dependency in CVA survivors and greater number of hours of care received. An integral approach to care for CVA survivors requires that the caregivers' role and needs be taken into account.

45. **ARTÍCULO Nº: 4006**

De LA, Giorgi RP, Villa GF. *The use of Cincinnati Prehospital Stroke Scale during telephone dispatch interview increases the accuracy in identifying stroke and transient ischemic attack symptoms*. BMC.Health Serv.Res. 2013; 13: 513

BACKGROUND: Timely and appropriate hospital treatment of acute cerebrovascular diseases (stroke and Transient Ischemic Attacks - TIA) improves patient outcomes. Emergency Medical Service (EMS) dispatchers who can identify cerebrovascular disease symptoms during telephone requests for emergency service also contribute to these improved outcomes. The Italian Ministry of Health issued guidelines on the management of AC patients in pre-hospital emergency service, including Cincinnati Prehospital Stroke Scale (CPSS) use.We measured the sensitivity and Positive Predictive Value (PPV) of EMS dispatchers' ability to recognize stroke/TIA symptoms and evaluated whether the CPSS improves accuracy. METHODS: A cross-sectional multicentre study was conducted to collect data from 38 Italian emergency operative centres on all cases identified with stroke/TIA symptoms at the time of dispatch and all cases with stroke/TIA symptoms identified on the scene by the ambulance personnel from November 2010 to May 2011. RESULTS: The study included 21760 cases: 18231 with stroke/TIA symptoms at dispatch and 9791 with symptoms confirmed on the scene. The PPV of the dispatch stroke/TIA symptoms identification was 34.3% (95% CI 33.7-35.0; 6262/18231) and the sensitivity was 64.0% (95% CI 63.0-64.9; 6262/9791). Centres using CPSS more often (>10% of cases) had both higher PPV (56%; CI 95% 57-60 vs 18%; CI 95% 17-19) and higher sensitivity (71%; CI 95% 87-89 vs 52%; CI 95% 51-54).In the multivariate regression a centre's CPSS use was associated with PPV (beta 0.48 p = 0.014) and negatively associated with sensitivity (beta -0.36; p = 0.063); centre sensitivity was associated with CPSS (beta 0.32; p = 0.002), adjusting for PPV. CONCLUSIONS: Centres that use CPSS more frequently during phone dispatch showed greater agreement with on-the-scene prehospital assessments, both in correctly identifying more cases with stroke/TIA symptoms and in giving fewer false positives for non-stroke/TIA cases. Our study shows an extreme variability in the performance among OCs, highlighting that form many centres there is room for improvement in both sensitivity and positive predictive value of the dispatch. Our results should be used for benchmarking proposals in the effort to identify best practices across the country.

46. **ARTÍCULO Nº: 4007**

Roughead EE, Kalisch Ellett LM, Ramsay EN, Pratt NL, Barratt JD, LeBlanc VT et al. *Bridging evidence-practice gaps: improving use of medicines in elderly Australian veterans*. BMC.Health Serv.Res. 2013; 13: 514

BACKGROUND: The Australian Government Department of Veterans' Affairs (DVA) funds an ongoing health promotion based program to improve use of medicines and related health services, which implements interventions that include audit and feedback in the form of patient-specific feedback generated from administrative claims records. We aimed to determine changes in medicine use as a result of the program. METHODS: The program provides targeted patient-specific feedback to medical practitioners. The feedback is supported with educational material developed by a clinical panel, subject to peer review and overseen by a national editorial committee. Veterans who meet target criteria also receive educational brochures. The program is supported by a national call centre and ongoing national consultation. Segmented regression analyses (interrupted time series) were undertaken to assess changes in medication use in targeted veterans pre and post each intervention. RESULTS: 12 interventions were included; three to increase medicine use, seven which aimed to reduce use, and two which had combination of messages to change use. All programs that aimed to increase medicine use were effective, with relative effect sizes at the time of the intervention ranging from 1% to 8%. Mixed results were seen with programs aiming to reduce inappropriate medicine use. Highly specific programs were effective, with relative effect sizes at the time of the intervention of 10% decline in use of NSAIDs in high risk groups and 14% decline in use of antipsychotics in dementia. Interventions targeting combinations of medicines, including medicine interactions and potentially inappropriate medicines in the elderly did not change practice significantly. Interventions with combinations of messages targeting multiple components of practice had an impact on one component, but not all components targeted. CONCLUSIONS: The Veterans' MATES program showed positive practice change over time, with interventions increasing use of appropriate medicines where under-use was evident and reduced use of inappropriate medicines when single medicines were targeted. Combinations of messages were less effective, suggesting specific messages focusing on single medicines are required to maximise effect. The program provides a model that could be replicated in other settings.

47. **ARTÍCULO Nº: 4008**

Tyssen R, Palmer KS, Solberg IB, Voltmer E, Frank E. *Physicians' perceptions of quality of care, professional autonomy, and job satisfaction in Canada, Norway, and the United States.* BMC.Health Serv.Res. 2013; 13: 516

BACKGROUND: We lack national and cross-national studies of physicians' perceptions of quality of patient care, professional autonomy, and job satisfaction to inform clinicians and policymakers. This study aims to compare such perceptions in Canada, the United States (U.S.), and Norway. METHODS: We analyzed data from large, nationwide, representative samples of physicians in Canada (n = 3,213), the U.S. (n = 6,628), and Norway (n = 657), examining demographics, job satisfaction, and professional autonomy. RESULTS: Among U.S. physicians, 79% strongly agreed/agreed they could provide high quality patient care vs. only 46% of Canadian and 59% of Norwegian physicians. U.S. physicians also perceived more clinical autonomy and time with their patients, with differences remaining significant even after controlling for age, gender, and clinical hours. Women reported less adequate time, clinical freedom, and ability to provide high-quality care. Country differences were the strongest predictors for the professional autonomy variables. In all three countries, physicians' perceptions of quality of care, clinical freedom, and time with patients influenced their overall job satisfaction. Fewer U.S. physicians reported their overall job satisfaction to be at-least-somewhat satisfied than did Norwegian and Canadian physicians. CONCLUSIONS: U.S. physicians perceived higher quality of patient care and greater professional autonomy, but somewhat lower job satisfaction than their colleagues in Norway and Canada. Differences in health care system financing and delivery might help explain this difference; Canada and Norway have more publicly-financed, not-for-profit health care delivery

systems, vs. a more-privately-financed and profit-driven system in the U.S. None of these three highly-resourced countries, however, seem to have achieved an ideal health care system from the perspective of their physicians.

48. **ARTÍCULO Nº: 4009**
Lipworth W, Taylor N, Braithwaite J. *Can the theoretical domains framework account for the implementation of clinical quality interventions?* BMC.Health Serv.Res. 2013; 13: 530

BACKGROUND: The health care quality improvement movement is a complex enterprise. Implementing clinical quality initiatives requires attitude and behaviour change on the part of clinicians, but this has proven to be difficult. In an attempt to solve this kind of behavioural challenge, the theoretical domains framework (TDF) has been developed. The TDF consists of 14 domains from psychological and organisational theory said to influence behaviour change. No systematic research has been conducted into the ways in which clinical quality initiatives map on to the domains of the framework. We therefore conducted a qualitative mapping experiment to determine to what extent, and in what ways, the TDF is relevant to the implementation of clinical quality interventions. METHODS: We conducted a thematic synthesis of the qualitative literature exploring clinicians' perceptions of various clinical quality interventions. We analysed and synthesised 50 studies in total, in five domains of clinical quality interventions: clinical quality interventions in general, structural interventions, audit-type interventions, interventions aimed at making practice more evidence-based, and risk management interventions. Data were analysed thematically, followed by synthesis of these themes into categories and concepts, which were then mapped to the domains of the TDF. RESULTS: Our results suggest that the TDF is highly relevant to the implementation of clinical quality interventions. It can be used to map most, if not all, of the attitudinal and behavioural barriers and facilitators of uptake of clinical quality interventions. Each of these 14 domains appeared to be relevant to many different types of clinical quality interventions. One possible additional domain might relate to perceived trustworthiness of those instituting clinical quality interventions. CONCLUSIONS: The TDF can be usefully applied to a wide range of clinical quality interventions. Because all 14 of the domains emerged as relevant, and we did not identify any obvious differences between different kinds of clinical quality interventions, our findings support an initially broad approach to identifying barriers and facilitators, followed by a "drilling down" to what is most contextually salient. In future, it may be possible to establish a model of clinical quality policy implementation using the TDF.

49. **ARTÍCULO Nº: 4010**
Webster F, Perruccio AV, Jenkinson R, Jaglal S, Schemitsch E, Waddell JP et al. *Where is the patient in models of patient-centred care: a grounded theory study of total joint replacement patients*. BMC.Health Serv.Res. 2013; 13: 531

BACKGROUND: Patient-centered care ideally considers patient preferences, values and needs. However, it is unclear if policies such as wait time strategies for hip and knee replacement surgery (TJR) are patient-centred as they focus on an isolated episode of care. This paper describes the accounts of people scheduled to undergo TJR, focusing on their experience of (OA) as a chronic disease that has considerable impact on their everyday lives. METHODS: Semi-structured qualitative interviews were conducted with participants scheduled to undergo TJR who were recruited from the practices of two orthopaedic surgeons. We first used maximum variation and then theoretical sampling based on age, sex and joint replaced. 33 participants (age 38-79 years; 17 female) were included in the analysis. 20 were scheduled for hip replacement and 13 for knee replacement. A

constructivist approach to grounded theory guided sampling, data collection and analysis. RESULTS: While a specific hip or knee was the target for surgery, individuals experienced multiple-joint symptoms and comorbidities. Management of their health and daily lives was impacted by these combined experiences. Over time, they struggled to manage symptoms with varying degrees of access to and acceptance of pain medication, which was a source of constant concern. This was a multi-faceted issue with physicians reluctant to prescribe and many patients reluctant to take prescription pain medications due to their side effects. CONCLUSIONS: For patients, TJR surgery is an acute intervention in the experience of chronic disease, OA and other comorbidities. While policy has focused on wait time as patient/surgeon decision for surgery to surgery date, the patient's experience does not begin or end with surgery as they struggle to manage their pain. Our findings suggest that further work is needed to align the medical treatment of OA with the current policy emphasis on patient-centeredness. Patient-centred care may require a paradigm shift that is not always evident in current policy and strategies.

50. **ARTÍCULO Nº: 4011**
Oliver K, Innvar S, Lorenc T, Woodman J, Thomas J. ***A systematic review of barriers to and facilitators of the use of evidence by policymakers****.* BMC.Health Serv.Res. 2014; 14: 2

BACKGROUND: The gap between research and practice or policy is often described as a problem. To identify new barriers of and facilitators to the use of evidence by policymakers, and assess the state of research in this area, we updated a systematic review. METHODS: Systematic review. We searched online databases including Medline, Embase, SocSci Abstracts, CDS, DARE, Psychlit, Cochrane Library, NHSEED, HTA, PAIS, IBSS (Search dates: July 2.

51. **ARTÍCULO Nº: 4012**
Neal RD, Nafees S, Pasterfield D, Hood K, Hendry M, Gollins S et al. ***Patient-reported measurement of time to diagnosis in cancer: development of the Cancer Symptom Interval Measure (C-SIM) and randomised controlled trial of method of delivery****.* BMC.Health Serv.Res. 2014; 14: 3

BACKGROUND: The duration between first symptom and a cancer diagnosis is important because, if shortened, may lead to earlier stage diagnosis and improved cancer outcomes. We have previously developed a tool to measure this duration in newly-diagnosed patients. In this two-phase study, we aimed further improve our tool and to conduct a trial comparing levels of anxiety between two modes of delivery: self-completed versus researcher-administered. METHODS: In phase 1, ten patients completed the modified tool and participated in cognitive debrief interviews. In phase 2, we undertook a Randomised Controlled Trial (RCT) of the revised tool (Cancer Symptom Interval Measure (C-SIM)) in three hospitals for 11 different cancers. Respondents were invited to provide either exact or estimated dates of first noticing symptoms and presenting them to primary care. The primary outcome was anxiety related to delivery mode, with completeness of recording as a secondary outcome. Dates from a subset of patients were compared with GP records. RESULTS: After analysis of phase 1 interviews, the wording and format were improved. In phase 2, 201 patients were randomised (93 self-complete and 108 researcher-complete). Anxiety scores were significantly lower in the researcher-completed group, with a mean rank of 83.5; compared with the self-completed group, with a mean rank of 104.0 (Mann-Whitney U = 3152, p = 0.007). Completeness of data was significantly better in the researcher-completed group, with no statistically significant difference in time taken to complete the tool between the two groups. When comparing the dates in the patient questionnaires with those in the GP records, there was evidence in the records of a consultation on the same date or within a proscribed time window for 32/37 (86%) consultations; for estimated dates

there was evidence for 23/37 consultations (62%). CONCLUSIONS: We have developed and tested a tool for collecting patient-reported data relating to appraisal intervals, help-seeking intervals, and diagnostic intervals in the cancer diagnostic pathway for 11 separate cancers, and provided evidence of its acceptability, feasibility and validity. This is a useful tool to use in descriptive and epidemiological studies of cancer diagnostic journeys, and causes less anxiety if administered by a researcher.

52. **ARTÍCULO Nº: 4013**
Cairney J, Veldhuizen S, Vigod S, Streiner DL, Wade TJ, Kurdyak P. ***Exploring the social determinants of mental health service use using intersectionality theory and CART analysis***. J.Epidemiol.Community Health. 2014; 68(2): 145-150.

BACKGROUND: Fewer than half of individuals with a mental disorder seek formal care in a given year. Much research has been conducted on the factors that influence service use in this population, but the methods generally used cannot easily identify the complex interactions that are thought to exist. In this paper, we examine predictors of subsequent service use among respondents to a population health survey who met criteria for a past-year mood, anxiety or substance-related disorder. METHODS: To determine service use, we use an administrative database including all physician consultations in the period of interest. To identify predictors, we use classification tree (CART) analysis, a data mining technique with the ability to identify unsuspected interactions. We compare results to those from logistic regression models. RESULTS: We identify 1213 individuals with past-year disorder. In the year after the survey, 24% (n=312) of these had a mental health-related physician consultation. Logistic regression revealed that age, sex and marital status predicted service use. CART analysis yielded a set of rules based on age, sex, marital status and income adequacy, with marital status playing a role among men and by income adequacy important among women. CART analysis proved moderately effective overall, with agreement of 60%, sensitivity of 82% and specificity of 53%. CONCLUSION: Results highlight the potential of data-mining techniques to uncover complex interactions, and offer support to the view that the intersection of multiple statuses influence health and behaviour in ways that are difficult to identify with conventional statistics. The disadvantages of these methods are also discussed.

53. **ARTÍCULO Nº: 4014**
Hammarstrom A, Johansson K, Annandale E, Ahlgren C, Alex L, Christianson M et al. ***Central gender theoretical concepts in health research: the state of the art***. J.Epidemiol.Community Health. 2014; 68(2): 185-190.

Despite increasing awareness of the importance of gender perspectives in health science, there is conceptual confusion regarding the meaning and the use of central gender theoretical concepts. We argue that it is essential to clarify how central concepts are used within gender theory and how to apply them to health research. We identify six gender theoretical concepts as central and interlinked-but problematic and ambiguous in health science: sex, gender, intersectionality, embodiment, gender equity and gender equality. Our recommendations are that: the concepts sex and gender can benefit from a gender relational theoretical approach (i.e., a focus on social processes and structures) but with additional attention to the interrelations between sex and gender; intersectionality should go beyond additive analyses to study complex intersections between the major factors which potentially influence health and ensure that gendered power relations and social context are included; we need to be aware of the various meanings given to embodiment, which achieve an integration of gender and health and attend to different levels of analyses to varying degrees; and appreciate that gender equality concerns absence of discrimination between women and

men while gender equity focuses on women's and men's health needs, whether similar or different. We conclude that there is a constant need to justify and clarify our use of these concepts in order to advance gender theoretical development. Our analysis is an invitation for dialogue but also a call to make more effective use of the knowledge base which has already developed among gender theorists in health sciences in the manner proposed in this paper.

54. **ARTÍCULO Nº: 4015**

Basey AJ, Krska J, Kennedy TD, Mackridge AJ. ***Prescribing errors on admission to hospital and their potential impact: a mixed-methods study.*** BMJ Qual.Saf. 2014; 23(1): 17-25.

BACKGROUND: Medication errors are an important cause of morbidity and mortality and adversely affect clinical outcomes. Prescribing errors constitute one type of medication error and occur particularly on admission to hospital; little is known about how they arise. AIM: This study investigated how doctors obtain the information necessary to prescribe on admission to hospital, and the number and potential impact of any errors. SETTING: English teaching hospital-acute medical unit. METHODS: Ethics approval was granted. Data were collected over four 1-week periods; November 2009, January 2010, April 2010 and April 2011. The patient admission process was directly observed, field notes were recorded using a standard form. Doctors participated in a structured interview; case notes of all patients admitted during study periods were reviewed. RESULTS: There were differences between perceived practice stated in interviews and actual practice observed. All 19 doctors interviewed indicated that they would sometimes or always use more than one source of information for a medication history; a single source was used in 31/68 observed cases. 7/12 doctors both observed and interviewed indicated that they would confirm medication with patients; observations showed they did so for only 2/12 patients. In 66/68 cases, the patient/carer was able to discuss medication, 14 were asked no medication-related questions. Of 688 medication charts reviewed, 318 (46.2%) had errors. A total of 851 errors were identified; 737/851 (86.6%) involved omission of a medicine; 94/737 (12.8%) of these were potentially significant. CONCLUSIONS: Although doctors know the importance of obtaining an accurate medication history and checking prescriptions with patients, they often fail to put this into practice, resulting in prescribing errors.

55. **ARTÍCULO Nº: 4016**

Leleu H, Capuano F, Nitenberg G, Traventual L, Minvielle E. ***Hospital performance based on treatment delays: comparison of ranking methods.*** BMJ Qual.Saf. 2014; 23(1): 73-77.

BACKGROUND: Reducing time-to-care is crucial in many acute and chronic diseases. Quality indicators based on target delays derived from guidelines are used to compare hospital performance but there is no accepted methodology for comparing performance when no target delay has been established. AIM: To explore by different statistical methods the uncertainty in hospital comparisons that are based on delay indicators, when no target delay is available. METHODS: Data for hospital door-to-needle time were extracted from a 2010 study of 1699 patients in 57 hospitals with ST-elevated myocardial infarction. We determined whether the times in each hospital were statistically different from the overall mean time or the median time for all hospitals by (i) one-way analysis of variance (ANOVA), (ii) non-parametric ANOVA with Nelson-Hsu adjustment (ANOVA R) and (iii) the proportional hazard model (PHM). We also tested for the assumptions underlying the methods: normal distribution for ANOVA, homogeneity of variances (homoscedasticity) for ANOVA and ANOVA R, and proportionality for PHM. RESULTS: Door-to-needle times were available for 889 patients in 44 hospitals. Data distribution was not Gaussian. Test assumptions were verified for ANOVA R (homoscedasticity) for one data subset (>48-h times (48H) excluded) and for PHM

(proportionality) for two data subsets (48H or >95th percentile (P95) times excluded). The same five significantly better performers were identified in each case (although ANOVA R missed one). ANOVA R (48H) identified two significantly poorer performers, PHM (48H) identified three and PHM (P95) just one. Poorer performers differed according to method. CONCLUSIONS: The tested statistical methods yielded broadly similar results but no method was truly satisfactory. A transparency statement should therefore always specify the ranking method used to compare hospital performance.

56. **ARTÍCULO Nº: 4017**

Politi MC, Dizon DS, Frosch DL, Kuzemchak MD, Stiggelbout AM. *Importance of clarifying patients' desired role in shared decision making to match their level of engagement with their preferences*. BMJ. 2013; 347: f7066

57. **ARTÍCULO Nº: 4018**

Thompson M, Vodicka TA, Blair PS, Buckley DI, Heneghan C, Hay AD. *Duration of symptoms of respiratory tract infections in children: systematic review*. BMJ. 2013; 347: f7027

OBJECTIVE: To determine the expected duration of symptoms of common respiratory tract infections in children in primary and emergency care. DESIGN: Systematic review of existing literature to determine durations of symptoms of earache, sore throat, cough (including acute cough, bronchiolitis, and croup), and common cold in children. DATA SOURCES: PubMed, DARE, and CINAHL (all to July 2012). ELIGIBILITY CRITERIA FOR SELECTING STUDIES: Randomised controlled trials or observational studies of children with acute respiratory tract infections in primary care or emergency settings in high income countries who received either a control treatment or a placebo or over-the-counter treatment. Study quality was assessed with the Cochrane risk of bias framework for randomised controlled trials, and the critical appraisal skills programme framework for observational studies. MAIN OUTCOME MEASURES: Individual study data and, when possible, pooled daily mean proportions and 95% confidence intervals for symptom duration. Symptom duration (in days) at which each symptom had resolved in 50% and 90% of children. RESULTS: Of 22,182 identified references, 23 trials and 25 observational studies met inclusion criteria. Study populations varied in age and duration of symptoms before study onset. In 90% of children, earache was resolved by seven to eight days, sore throat between two and seven days, croup by two days, bronchiolitis by 21 days, acute cough by 25 days, common cold by 15 days, and non-specific respiratory tract infections symptoms by 16 days. CONCLUSIONS: The durations of earache and common colds are considerably longer than current guidance given to parents in the United Kingdom and the United States; for other symptoms such as sore throat, acute cough, bronchiolitis, and croup the current guidance is consistent with our findings. Updating current guidelines with new evidence will help support parents and clinicians in evidence based decision making for children with respiratory tract infections.

58. **ARTÍCULO Nº: 4019**

Dowrick C, Frances A. *Medicalising unhappiness: new classification of depression risks more patients being put on drug treatment from which they will not benefit*. BMJ. 2013; 347: f7140

59. **ARTÍCULO Nº: 4020**

Quint JK, Herrett E, Bhaskaran K, Timmis A, Hemingway H, Wedzicha JA et al. *Effect of beta blockers on mortality after myocardial infarction in adults with COPD: population based cohort study of UK electronic healthcare records*. BMJ. 2013; 347: f6650

OBJECTIVES: To investigate whether the use and timing of prescription of beta blockers in patients with chronic obstructive pulmonary disease (COPD) having a first myocardial infarction was associated

with survival and to identify factors related to their use. DESIGN: Population based cohort study in England. SETTING: UK national registry of myocardial infarction (Myocardial Ischaemia National Audit Project (MINAP)) linked to the General Practice Research Database (GPRD), 2003-11. PARTICIPANTS: Patients with COPD with a first myocardial infarction in 1 January 2003 to 31 December 2008 as recorded in MINAP, who had no previous evidence of myocardial infarction in their GPRD or MINAP record. Data were provided by the Cardiovascular Disease Research using Linked Bespoke studies and Electronic Health Records (CALIBER) group at University College London. MAIN OUTCOME MEASURE: Cox proportional hazards ratio for mortality after myocardial infarction in patients with COPD in those prescribed beta blockers or not, corrected for covariates including age, sex, smoking status, drugs, comorbidities, type of myocardial infarction, and severity of infarct. RESULTS: Among 1063 patients with COPD, treatment with beta blockers started during the hospital admission for myocardial infarction was associated with substantial survival benefits (fully adjusted hazard ratio 0.50, 95% confidence interval 0.36 to 0.69; P<0.001; median follow-up time 2.9 years). Patients already taking a beta blocker before their myocardial infarction also had a survival benefit (0.59, 0.44 to 0.79; P<0.001). Similar results were obtained with propensity scores as an alternative method to adjust for differences between those prescribed and not prescribed beta blockers. With follow-up started from date of discharge from hospital, the effect size was slightly attenuated but there was a similar protective effect of treatment with beta blockers started during hospital admission for myocardial infarction (0.64, 0.44 to 0.94; P=0.02). CONCLUSIONS: The use of beta blockers started either at the time of hospital admission for myocardial infarction or before a myocardial infarction is associated with improved survival after myocardial infarction in patients with COPD. REGISTRATION: NCT01335672.

60. **ARTÍCULO Nº: 4021**
Dharmarajan K, Hsieh AF, Lin Z, Bueno H, Ross JS, Horwitz LI et al. *Hospital readmission performance and patterns of readmission: retrospective cohort study of Medicare admissions*. BMJ. 2013; 347: f6571

OBJECTIVES: To determine whether high performing hospitals with low 30 day risk standardized readmission rates have a lower proportion of readmissions from specific diagnoses and time periods after admission or instead have a similar distribution of readmission diagnoses and timing to lower performing institutions. DESIGN: Retrospective cohort study. SETTING: Medicare beneficiaries in the United States. PARTICIPANTS: Patients aged 65 and older who were readmitted within 30 days after hospital admission for heart failure, acute myocardial infarction, or pneumonia in 2007-09. MAIN OUTCOME MEASURES: Readmission diagnoses were classified with a modified version of the Centers for Medicare and Medicaid Services' condition categories, and readmission timing was classified by day (0-30) after hospital discharge. Hospital 30 day risk standardized readmission rates over the three years of study were calculated with public reporting methods of the US federal government, and hospitals were categorized with bootstrap analysis as having high, average, or low readmission performance for each index condition. High and low performing hospitals had >/= 95% probability of having an interval estimate respectively less than or greater than the national 30 day readmission rate over the three year period of study. All remaining hospitals were considered average performers. RESULTS: For readmissions in the 30 days after the index admission, there were 320,003 after 1,291,211 admissions for heart failure (4041 hospitals), 102,536 after 517,827 admissions for acute myocardial infarction (2378 hospitals), and 208,438 after 1,135,932 admissions for pneumonia (4283 hospitals). The distribution of readmissions by diagnosis was similar across categories of hospital performance for all three conditions. High performing hospitals had fewer readmissions for all common diagnoses. Median time to readmission was similar by hospital performance for heart failure

and acute myocardial infarction, though was 1.4 days longer among high versus low performing hospitals for pneumonia (P<0.001). Findings were unchanged after adjustment for other hospital characteristics potentially associated with readmission patterns. CONCLUSIONS: High performing hospitals have proportionately fewer 30 day readmissions without differences in readmission diagnoses and timing, suggesting the possible benefit of strategies that lower risk of readmission globally rather than for specific diagnoses or time periods after hospital stay.

61. **ARTÍCULO Nº: 4022**

Donze J, Lipsitz S, Bates DW, Schnipper JL. *Causes and patterns of readmissions in patients with common comorbidities: retrospective cohort study.* BMJ. 2013; 347: f7171

OBJECTIVE: To evaluate the primary diagnoses and patterns of 30 day readmissions and potentially avoidable readmissions in medical patients with each of the most common comorbidities. DESIGN: Retrospective cohort study. SETTING: Academic tertiary medical centre in Boston, 2009-10. PARTICIPANTS: 10,731 consecutive adult discharges from a medical department. MAIN OUTCOME MEASURES: Primary readmission diagnoses of readmissions within 30 days of discharge and potentially avoidable 30 day readmissions to the index hospital or two other hospitals in its network. RESULTS: Among 10,731 discharges, 2398 (22.3%) were followed by a 30 day readmission, of which 858 (8.0%) were identified as potentially avoidable. Overall, infection, neoplasm, heart failure, gastrointestinal disorder, and liver disorder were the most frequent primary diagnoses of potentially avoidable readmissions. Almost all of the top five diagnoses of potentially avoidable readmissions for each comorbidity were possible direct or indirect complications of that comorbidity. In patients with a comorbidity of heart failure, diabetes, ischemic heart disease, atrial fibrillation, or chronic kidney disease, the most common diagnosis of potentially avoidable readmission was acute heart failure. Patients with neoplasm, heart failure, and chronic kidney disease had a higher risk of potentially avoidable readmissions than did those without those comorbidities. CONCLUSIONS: The five most common primary diagnoses of potentially avoidable readmissions were usually possible complications of an underlying comorbidity. Post-discharge care should focus attention not just on the primary index admission diagnosis but also on the comorbidities patients have.

62. **ARTÍCULO Nº: 4023**

Kynaston-Pearson F, Ashmore AM, Malak TT, Rombach I, Taylor A, Beard D et al. *Primary hip replacement prostheses and their evidence base: systematic review of literature.* BMJ. 2013; 347: f6956

OBJECTIVE: To determine the extent to which prostheses with no readily available evidence to support their use are being implanted in primary total hip arthroplasty. DESIGN: Systematic review of the literature. DATA SOURCES: The 9th annual report of the National Joint Registry of England and Wales (NJR) was analysed to identify prostheses with an Orthopaedic Data Evaluation Panel rating of "unclassified" or "pre-entry" used in primary total hip arthroplasty in 2011. A systematic review of those prostheses was carried out using PubMed, Cochrane, Embase, OVID, and Google databases. STUDY SELECTION: Prostheses used in primary total hip arthroplasty as published in the NJR's 9th annual report were analysed. Only literature that included the name of the prosthesis was included. Literature yielded in the search results was excluded if it reported animal, non-orthopaedic, non-total hip arthroplasty, or non-device related studies. RESULTS: The systematic review found that 24% (57/235) of all hip replacement implants available to surgeons in the UK have no evidence for their clinical effectiveness. It also shows that 10,617 (7.8%) of the 136,593 components used in primary hip replacements in 2011 were implanted without readily identifiable evidence of clinical effectiveness.

These comprised 157 cemented stems (0.5% of 34,655 implanted), 936 (2.8% of 33,367) uncemented stems, 1732 (7.1% of 24,349) cemented cups, and 7577 (17.1% of 44,222) uncemented cups. CONCLUSIONS: This study shows that a considerable proportion of prostheses available to orthopaedic surgeons have no readily available evidence of clinical effectiveness to support their use. Concern exists about the current system of device regulation, and the need for a revised process for introducing new orthopaedic devices is highlighted.

63. **ARTÍCULO Nº: 4024**

Graham J, Kirkbride P, Cann K, Hasler E, Prettyjohns M. ***Prostate cancer: summary of updated NICE guidance.*** BMJ. 2014; 348: f7524

64. **ARTÍCULO Nº: 4025**

guilar-Palacio I, Carrera-Lasfuentes P, Poblador-Plou B, Prados-Torres A, Rabanaque-Hernandez MJ. ***[Morbidity and drug consumption. Comparison of results between the National Health Survey and electronic medical records].*** Gac.Sanit. 2014; 28(1): 41-47.

OBJECTIVE: To compare the prevalence of disease and drug consumption obtained by using the National Health Survey (NHS) with the information provided by the electronic medical records (EMR) in primary health care and the Pharmaceutical Consumption Registry in Aragon (Farmasalud) in the adult population in the province of Zaragoza. METHODS: A cross-sectional study was performed to compare the prevalence of diseases in the NHS-2006 and in the EMR. The prevalence of drug consumption was obtained from the NHS-2006 and Farmasalud. Estimations using each database were compared with their 95% confidence intervals (95% CI) and the results were stratified by gender and age groups. The comparability of the databases was tested. RESULTS: According to the NHS, a total of 81.8% of the adults in the province of Zaragoza visited a physician in 2006. According to the EMR, 61.4% of adults visited a primary care physician. The most prevalent disease in both databases was hypertension (NHS: 21.5%, 95% CI: 19.4-23.9; EMR: 21.6%, 95% CI: 21.3-21.8). The greatest differences between the NHS and EMR was observed in the prevalence of depression, anxiety, and other mental illnesses (NHS: 10.9%; EMR: 26.6%). The most widely consumed drugs were analgesics The prevalence of drug consumption differed in the two databases, with the greatest differences being found in pain medication (NHS: 23.3%; Farmasalud: 63.8%) and antibiotics (NHS: 3.4%; Farmasalud: 41.7%). These differences persisted after we stratified by gender and were especially important in the group aged more than 75 years. CONCLUSIONS: The prevalence of morbidity and drug consumption differed depending on the database employed. The use of different databases is recommended to estimate real prevalences.

65. **ARTÍCULO Nº: 4026**

Allue N, Chiarello P, Bernal DE, Castells X, Giraldo P, Martinez N et al. ***[Assessing the economic impact of adverse events in Spanish hospitals by using administrative data].*** Gac.Sanit. 2014; 28(1): 48-54.

OBJECTIVE: To evaluate the incidence and costs of adverse events registered in an administrative dataset in Spanish hospitals from 2008 to 2010. METHODS: A retrospective study was carried out that estimated the incremental cost per episode, depending on the presence of adverse events. Costs were obtained from the database of the Spanish Network of Hospital Costs. This database contains data from 12 hospitals that have costs per patient records based on activities and clinical records. Adverse events were identified through the Patient Safety Indicators (validated in the Spanish Health System) created by the Agency for Healthcare Research and Quality together with indicators of the EuroDRG European project. RESULTS: This study included 245,320 episodes with a total cost of

1,308,791,871euro. Approximately 17,000 patients (6.8%) experienced an adverse event, representing 16.2% of the total cost. Adverse events, adjusted by diagnosis-related groups, added a mean incremental cost of between euro5,260 and euro11,905. Six of the 10 adverse events with the highest incremental cost were related to surgical interventions. The total incremental cost of adverse events was euro 88,268,906, amounting to an additional 6.7% of total health expenditure. CONCLUSIONS: Assessment of the impact of adverse events revealed that these episodes represent significant costs that could be reduced by improving the quality and safety of the Spanish Health System.

66. **ARTÍCULO Nº: 4027**
Garcia-Perez L, guiar-Ibanez R, Pinilla-Dominguez P, rvelo-Martin A, Linertova R, Rivero-Santana A. *[Systematic review of health-related utilities in Spain: the case of mental health]*. Gac.Sanit. 2014; 28(1): 77-83.

OBJECTIVES: Currently, there is no registry of utility values for the Spanish population that could potentially be used in economic evaluations. Consequently, a systematic review of utilities or preferences for health states in the Spanish population was conducted. The results related to mental health are reported. METHODS: A systematic review of the literature was conducted. The main databases searched were MEDLINE, CRD, Embase, PsycINFO, CINAHL, and Cochrane. The search strategy combined terms related to utilities and Spain. The inclusion criteria comprised the resident population in Spain, whether affected by any disease or not; the reported utilities had to be evaluated through a tool validated in Spain (i.e., EQ-5D, HUI, SF-6D) and/or following accepted techniques (e.g., time trade-off, standard gamble, or the visual analog scale). A narrative synthesis of articles was undertaken and the results related to mental health summarized. RESULTS: A total of 103 articles were finally included, from which 742 utility values were extracted. Sixty-nine utility values related to mental health and behavioral disorders were extracted from 12 studies. The most widely used tool was the E5-QD questionnaire. Most of the excluded articles evaluated quality of life but did not provide an estimation of utilities. CONCLUSIONS: This review adds value to research on utilities in Spain by gathering values to be included in economic evaluations, as well as by identifying research gaps in this field. The utility values related to mental health identified in this study are similar to those reported in international publications.

67. **ARTÍCULO Nº: 4028**
Lowe TJ, Kroch E, Martin J, Bankowitz R. *Development of a method to measure and compare hospital waste: the Premier hospital waste index*. Am.J.Med.Qual. 2014; 29(1): 20-29.

The authors developed 15 measures and a comparative index to assist acute care facilities in identifying and monitoring clinical and administrative functions for health care waste reduction. Primary clinical and administrative data were collected from 261 acute care facilities contained within a database maintained by Premier Inc, spanning October 1, 2010, to September 30, 2011. The measures and 4 index models were tested using the Cronbach alpha coefficient and item-to-total and Spearman rank correlations. The final index model was validated using 52 facilities that had complete data. Analysis of the waste measures showed good internal reliability (alpha = .85) with some overlap. Index modeling found that data transformation using the standard deviation and adjusting for the proportional contribution of each measure normalized the distribution and produced a Spearman rank correlation of 0.95. The waste measures and index methodology provide a simple and reliable means to identify and reduce waste and compare and monitor facility performance.

68. **ARTÍCULO Nº: 4029**

Wahr JA, Shore AD, Harris LH, Rogers P, Panesar S, Matthew L et al. ***Comparison of intensive care unit medication errors reported to the United States' MedMarx and the United Kingdom's National Reporting and Learning System: a cross-sectional study***. Am.J.Med.Qual. 2014; 29(1): 61-69.

The objective was to compare the characteristics of medication errors reported to 2 national error reporting systems by conducting a cross-sectional analysis of errors reported from adult intensive care units to the UK National Reporting and Learning System and the US MedMarx system. Outcome measures were error types, severity of patient harm, stage of medication process, and involved medications. The authors analyzed 2837 UK error reports and 56 368 US reports. Differences were observed between UK and US errors for wrong dose (44% vs 29%), omitted dose (8.6% vs 27%), and stage of medication process (prescribing: 14% vs 49%; administration: 71% vs 42%). Moderate/severe harm or death was reported in 4.9% of UK versus 3.4% of US errors. Gentamicin was cited in 7.4% of the UK versus 0.7% of the US reports (odds ratio = 9.25). There were differences in the types of errors reported and the medications most often involved. These differences warrant further examination.

69. **ARTÍCULO Nº: 4030**

Bender JL, Yue RY, To MJ, Deacken L, Jadad AR. ***A lot of action, but not in the right direction: systematic review and content analysis of smartphone applications for the prevention, detection, and management of cancer***. J.Med.Internet.Res. 2013; 15(12): e287

BACKGROUND: Mobile phones have become nearly ubiquitous, offering a promising means to deliver health interventions. However, little is known about smartphone applications (apps) for cancer. OBJECTIVE: The purpose of this study was to characterize the purpose and content of cancer-focused smartphone apps available for use by the general public and the evidence on their utility or effectiveness. METHODS: We conducted a systematic review of the official application stores for the four major smartphone platforms: iPhone, Android, Nokia, and BlackBerry. Apps were included in the review if they were focused on cancer and available for use by the general public. This was complemented by a systematic review of literature from MEDLINE, Embase, and the Cochrane Library to identify evaluations of cancer-related smartphone apps. RESULTS: A total of 295 apps from the smartphone app stores met the inclusion criteria. The majority of apps targeted breast cancer (46.8%, 138/295) or cancer in general (28.5%, 84/295). The reported app purpose was predominantly to raise awareness about cancer (32.2%, 95/295) or to provide educational information about cancer (26.4%, 78/295), followed by apps to support fundraising efforts (12.9%, 38/295), assist in early detection (11.5%, 34/295), promote a charitable organization (10.2%, 30/295), support disease management (3.7%, 11/295), cancer prevention (2.0%, 6/295), or social support (1.0%, 3/295). The majority of the apps did not describe their organizational affiliation (64.1%, 189/295). Apps affiliated with non-profit organizations were more likely to be free of cost (chi(2) 1=16.3, P<.001) and have a fundraising or awareness purpose (chi(2) 2=13.3, P=.001). The review of the health literature yielded 594 articles, none of which reported an evaluation of a cancer-focused smartphone application. CONCLUSIONS: There are hundreds of cancer-focused apps with the potential to enhance efforts to promote behavior change, to monitor a host of symptoms and physiological indicators of disease, and to provide real-time supportive interventions, conveniently and at low cost. However, there is a lack of evidence on their utility, effectiveness, and safety. Future efforts should focus on improving and consolidating the evidence base into a whitelist for public consumption.

70. **ARTÍCULO Nº: 4031**
Shahian DM, Liu X, Meyer GS, Torchiana DF, Normand SL. *Hospital teaching intensity and mortality for acute myocardial infarction, heart failure, and pneumonia*. Med.Care. 2014; 52(1): 38-46.

BACKGROUND: Under the Affordable Care Act, health care reimbursement will increasingly be linked to quality and costs. In this environment, teaching hospitals will be closely scrutinized, as their care is often more expensive. Furthermore, although they serve vital roles in education, research, management of complex diseases, and care of vulnerable populations, debate continues as to whether teaching hospitals deliver better outcomes for common conditions. OBJECTIVE: To determine the association between risk-standardized mortality and teaching intensity for 3 common conditions. RESEARCH DESIGN: Using CMS models, 30-day risk-standardized mortality rates were compared among US hospitals classified as Council of Teaching Hospital (COTH) members, non-COTH teaching hospitals, or nonteaching hospitals. These analyses were repeated using ratios of interns and residents to beds to classify teaching intensity. SUBJECTS: The study cohort included Medicare fee-for-service beneficiaries aged 66 years or older hospitalized in acute care hospitals during 2009-2010 for acute myocardial infarction (N = 342,145), heart failure (N = 647,081), or pneumonia (N = 598,366). OUTCOME MEASURE: The 30-day risk-standardized mortality rates for each condition, stratified by teaching intensity. RESULTS: For each diagnosis, compared with nonteaching hospitals there was a 10% relative reduction in the adjusted odds of mortality for patients admitted to COTH hospitals and a 6%-7% relative reduction for patients admitted to non-COTH teaching hospitals. These findings were insensitive to the method of classifying teaching intensity and only partially explained by higher teaching hospital volumes. CONCLUSIONS: Health care reimbursement strategies designed to increase value should consider not only the costs but also the superior clinical outcomes at teaching hospitals for certain common conditions.

71. **ARTÍCULO Nº: 4032**
Jerant A, Fenton JJ, Bertakis KD, Franks P. *Satisfaction with health care providers and preventive care adherence: a national study*. Med.Care. 2014; 52(1): 78-85.

BACKGROUND: Prior studies demonstrating associations between patient satisfaction with health care providers and preventive adherence were cross-sectional, limiting causal inferences. In cross-sectional and prospective analyses, we explored 3 hypotheses previously invoked to explain associations between satisfaction with providers and preventive adherence: (1) receiving preventive care increases satisfaction; (2) enhancing satisfaction increases preventive care; (3) satisfaction and adherence reflect patient characteristics, incompletely adjusted for in previous studies. METHODS: We conducted 3 sets of logistic regression analyses employing 2000-2010 Medical Expenditure Panel Survey data: 1 cross-sectional and 2 prospective (baseline preventive care/follow-up year satisfaction, and baseline satisfaction/follow-up year preventive care), each set cumulatively adjusting for patient demographics, socioeconomics, morbidity, health care access, and medical skepticism. Consumer Assessment of Health Plans Survey items measured satisfaction with care from all providers in the preceding year. Preventive care examined included influenza vaccination and colorectal cancer, Papanicolaou, mammography, and prostate-specific antigen screening. RESULTS: In cross-sectional analyses adjusted for demographics (N = 74,792), highest (vs. lowest) quartile satisfaction was associated with preventive adherence [adjusted odds ratios (95% confidence interval)]: influenza vaccination 1.14 (1.07, 1.22); colorectal cancer screening 1.08 (0.99, 1.18); Papanicolaou screening 1.14 (1.04, 1.24); mammography screening 1.20 (1.11, 1.31); prostate-specific antigen screening 1.38 (1.25, 1.52). With full adjustment, associations of satisfaction with adherence were substantially attenuated, eliminated, or reversed. Prospective analyses yielded findings similar to the

cross-sectional analyses. CONCLUSIONS: Cross-sectional and prospective associations between satisfaction with providers and preventive care adherence were similarly explained by patient characteristics. The findings question previously hypothesized causal relationships between satisfaction and preventive adherence.

72. **ARTÍCULO Nº: 4033**
Ugarte FG, Otero CR, Ferrer GM, Morillo GR, Elias HT, Jara PL. *[Predictive Khorana's model in patients with venous thromboembolic disease and cancer]*. Med.Clin.(Barc.). 2013; 141(11): 479-481.

BACKGROUND AND OBJECTIVE: The predictive Khorana's model was developed to score the thromboembolic disease risk in cancer patients on chemotherapy and to identify which patients would benefit from thromboprophylaxis. We analized the results and applied the predictive Khorana's model in patients with cancer and who were diagnosed with deep vein thrombosis. MATERIAL AND METHODS: Retrospective analysis of prognostic characteristics of Khorana's model in 122 patients based on a prospective analysis. RESULTS: Seventy-nine percent of the total were in the low and intermediate risk category and 21% had high risk according to the Khorana's predictive model. This model had a sensitivity and prognostic precision of 20.8% (95% confidence interval [95% CI]: 14.6-28.7) and a false negatives proportion of 79.2% (95% CI: 1.3-85.4). CONCLUSIONS: Application of this model in our patients would not be enough as the unique tool to identify cancer patients who should receive tromboprophylaxis. The use of both biomarkers and clinical models seems to be the best cost-effective strategy for this purpose. Future, randomized, prospective, placebo-controlled studies are needed for find better treatment strategies in cancer patients.

73. **ARTÍCULO Nº: 4034**
Briongos FS, Garcia Santos-Gallego C, Badimon JJ. *[Improvements in oral anticoagulant therapy for atrial fibrillation]*. Med.Clin.(Barc.). 2013; 141(11): 487-493.

For the last decades vitamin K antagonists have been the most effective anticoagulant treatment of atrial fibrillation. New molecules are being designed, mainly due to the great amount of disadvantages in the management of conventional anticoagulation. Dabigatran, rivaroxaban and apixaban will soon be available as an alternative to warfarin/acenocumarol. All of them have demonstrated to be non-inferior to warfarin in preventing stroke and systemic embolism, with even dabigatran 150 mg bid and apixaban being superior. They have also a lower risk of bleeding, especially regarding severe/fatal and intracranial hemorrhages. This is a real revolution. The advance of these new anticoagulants will be limited only by the higher cost, and will progressively become the protagonists of oral anticoagulation in patients with nonvalvular atrial fibrillation.

74. **ARTÍCULO Nº: 4035**
Sanfelix-Gimeno G*[Opportunities for improvement in the management of osteoporosis. Time to tackle the essential]*. Med.Clin.(Barc.). 2013; 141(12): 527-528.

75. **ARTÍCULO Nº: 4036**
Arboix A, Massons J, Garcia-Eroles L, Grau-Olivares M, Targa C, Comes E et al. *[Trends in risk factors, clinical characteristics and prognosis in primary intracerebral haemorrhage (1986-2004)]*. Med.Clin.(Barc.). 2014; 142(1): 1-6.

BACKGROUND AND OBJECTIVES: Cardiovascular risk factors, clinical features and early outcome of first-ever primary intracerebral haemorrhage (PIH) from 1986 to 2004 using the Sagrat Cor Hospital of

Barcelona Stroke Registry were assessed, and compared with data from patients with first-ever ischemic stroke. PATIENTS AND METHODS: The study population consisted of 380 patients with PIH and 2,082 patients with ischemic stroke. Secular trends for the periods 1986-1992, 1993-1998 and 1999-2004 were analyzed. RESULTS: Age increased significantly (P<.001) throughout the 3 study periods and there was a significant increase in the percentage of patients with atrial fibrillation, chronic obstructive pulmonary disease (COPD) and lobar topography. The use of brain magnetic resonance imaging (MRI) also increased significantly throughout the study periods. In comparison with ischemic stroke in-hospital death was more frequent (28,2 vs. 12%) and lacunar syndrome (9,5 vs. 31,4%) and symptom-free patients at discharge were less frequent in the intracerebral haemorrhage group (6,1 vs. 18,3%). CONCLUSIONS: Significant changes over a 19-year period included an increase in the patient's age, frequency of COPD and atrial fibrillation and use of MRI imaging studies. PIH is a severe subtype of stroke with a higher risk of early death and lower asymptomatic frequency at discharge than ischemic cerebral infarct.

76. **ARTÍCULO Nº: 4037**
Royo-Bordonada MA, Lobos JM, Brotons C, Villar F, de PC, Armario P et al. *[The condition of the cardiovascular prevention in Spain]*. Med.Clin.(Barc.). 2014; 142(1): 7-14.

BACKGROUND AND OBJECTIVE: In Spain, where cardiovascular diseases are the leading cause of death, control of their risk factors is low. This study analyzes the implementation of cardiovascular risk (CVR) assessment in clinical practice and the existence of control objectives amongst quality care indicators and professional incentive systems. METHOD: Between 2010 and 2011, data from each autonomous community were collected, by means of a specific questionnaire concerning prevalence and control of major CVR factors, CVR assessment, and implementation of control objectives amongst quality care indicators and primary care incentive systems. RESULTS: Fifteen out of 17 autonomous communities filled in the questionnaire. CVR was calculated through SCORE in 9 autonomous communities, REGICOR in 3 and Framingham in 3, covering 3.4 to 77.6% of target population. The resulting control of the main CVR factors was low and variable: hypertension (22.7-61.3%), dyslipidemia (11-45.1%), diabetes (18.5-84%) and smoking (20-50.5%). Most autonomous communities did not consider CVR assessment and control amongst quality care indicators or incentive systems, highlighting the lack of initiatives on lifestyles. CONCLUSIONS: Variability exists in cardiovascular prevention policies among autonomous communities. It is necessary to implement a common agreed cardiovascular prevention guide, to encourage physicians to implement CVR in electronic clinical history, and to promote CVR assessment and control inclusion amongst quality care indicators and professional incentive systems, focusing on lifestyles management.

77. **ARTÍCULO Nº: 4038**
Sanfelix-Genoves J, Catala-Lopez F, Sanfelix-Gimeno G, Hurtado I, Baixauli C, Peiro S. *[Variability in the recommendations for the clinical management of osteoporosis]*. Med.Clin.(Barc.). 2014; 142(1): 15-22.

BACKGROUND AND OBJECTIVE: Analysis of the variability in the recommendations of the main guidelines and clinical documents for the management of osteoporosis. MATERIAL AND METHOD: Searches were carried out in PubMed, Google, web pages of national and international scientific societies related to the management of osteoporosis, and agencies that develop guidelines. We analyzed guidelines and clinical documents that included recommendations for the indication of bone densitometry and/or pharmacological treatment, which could influence the management of osteoporosis in the Spanish National Health System, which have been published between 2006 and

2012. RESULTS: We included 12 documents. Eleven recommend performing bone densitometry upon assessing women risk factors, but the number and type of risk factors vary between documents: 6 recommend its implementation to all women over 65 years, 4 in men aged 65-70 years, and 3 when there is radiological suspicion of osteoporosis. There is agreement on the recommendations on the indication for densitometry to monitor drug response. In primary prevention, all national documents combined risk factors and densitometric osteoporosis and 3 of them recommend individual assessment according to risk factors. Most of the international guidelines require the calculation of risk with the FRAX((R)) tool. In secondary prevention, all documents recommend treatment in cases of hip or clinical vertebral fracture; in men, and for the rest of fractures, the recommendations are heterogeneous. CONCLUSIONS: Overall there is a high variability in the recommendations of guidelines and other documents for the management of osteoporosis.

78. **ARTÍCULO Nº: 4039**
Jimenez Caballero PE*[Spontaneous intracerebral hemorrhage: current perspectives]*. Med.Clin.(Barc.). 2014; 142(1): 23-24.

79. **ARTÍCULO Nº: 4040**
renas-Fernandez J, Fernandez-Martin JL, Cannata-Andia JB, Martinez-Camblor P. *[Observational studies: the hazard and other gods]*. Med.Clin.(Barc.). 2014; 142(2): 80-84.

80. **ARTÍCULO Nº: 4041**
Gomez-Huelgas R, Martinez-Castelao A, Artola S, Gorriz JL, Menendez E. *[Treatment of type 2 diabetes mellitus in patients with chronic kidney disease]*. Med.Clin.(Barc.). 2014; 142(2): 85-10.

Chronic kidney disease (CKD) and type 2 diabetes mellitus (T2DM) are highly prevalent chronic diseases, which represent an important public health problem and require a multidisciplinary management. T2DM is the main cause of CKD and it also causes a significant comorbidity with regard to non-diabetic nephropathy. Patients with diabetes and kidney disease represent a special risk group as they have higher morbi-mortality as well as higher risk of hypoglycemia than diabetic individuals with a normal kidney function. Treatment of T2DM in patients with CKD is controversial because of the scarcity of available evidence. The current consensus report aims to ease the appropriate selection and dosage of antidiabetic treatments as well as the establishment of safety objectives of glycemic control in patients with CKD.

81. **ARTÍCULO Nº: 4042**
Parikh RB, Kirch RA, Smith TJ, Temel JS. *Early specialty palliative care--translating data in oncology into practice*. N.Engl.J.Med. 2013; 369(24): 2347-2351.

82. **ARTÍCULO Nº: 4043**
Kisloff B, Iddriss A, Tsai TC, Jha AK. *Surgical-readmission rates and quality of care*. N.Engl.J.Med. 2013; 369(25): 2460-2461.

83. **ARTÍCULO Nº: 4044**
Mathias PF, Wagner DR, Devaux Y, Collignon O, Danchin N, Puymirat E et al. *Door-to-balloon time and mortality*. N.Engl.J.Med. 2014; 370(2): 178-182.

84. **ARTÍCULO Nº: 4045**

Forster A, Dickerson J, Young J, Patel A, Kalra L, Nixon J et al. *A structured training programme for caregivers of inpatients after stroke (TRACS): a cluster randomised controlled trial and cost-effectiveness analysis*. Lancet. 2013; 382(9910): 2069-2076.

BACKGROUND: Most patients who have had a stroke are dependent on informal caregivers for activities of daily living. The TRACS trial investigated a training programme for caregivers (the London Stroke Carers Training Course, LSCTC) on physical and psychological outcomes, including cost-effectiveness, for patients and caregivers after a disabling stroke. METHODS: We undertook a pragmatic, multicentre, cluster randomised controlled trial with a parallel cost-effectiveness analysis. Stroke units were eligible if four of five criteria used to define a stroke unit were met, a substantial number of patients on the unit had a diagnosis of stroke, staff were able to deliver the LSCTC, and most patients were discharged to a permanent place of residence. Stroke units were randomly assigned to either LSCTC or usual care (control group), stratified by geographical region and quality of care, and using blocks of size 2. Patients with a diagnosis of stroke, likely to return home with residual disability and with a caregiver providing support were eligible. The primary outcome for patients was self-reported extended activities of daily living at 6 months, measured with the Nottingham Extended Activities of Daily Living (NEADL) scale. The primary outcome for caregivers was self-reported burden at 6 months, measured with the caregivers burden scale (CBS). We combined patient and caregiver costs with primary outcomes and quality-adjusted life-years (QALYs) to assess cost-effectiveness. This trial is registered with controlled-trials.com, number ISRCTN 49208824. FINDINGS: We assessed 49 stroke units for eligibility, of which 36 were randomly assigned to either the intervention group or the control group. Between Feb 27, 2008, and Feb 9, 2010, 928 patient and caregiver dyads were registered, of which 450 were in the intervention group, and 478 in the control group. Patients' self-reported extended activities of daily living did not differ between groups at 6 months (adjusted mean NEADL score 27.4 in the intervention group versus 27.6 in the control group, difference -0.2 points [95% CI -3.0 to 2.5], p value=0.866, ICC=0.027). The caregiver burden scale did not differ between groups either (adjusted mean CBS 45.5 in the intervention group versus 45.0 in the control group, difference 0.5 points [95% CI -1.7 to 2.7], p value=0.660, ICC=0.013). Patient and caregiver costs were similar in both groups (length of the initial stroke admission and associated costs were pound13,127 for the intervention group and pound12,471 for the control group; adjusted mean difference pound1243 [95% CI -1533 to 4019]; p value=0.380). Probabilities of cost-effectiveness based on QALYs were low. INTERPRETATION: In a large scale, robust evaluation, results from this study have shown no differences between the LSCTC and usual care on any of the assessed outcomes. The immediate period after stroke might not be the ideal time to deliver structured caregiver training. FUNDING: Medical Research Council.

85. **ARTÍCULO Nº: 4046**

Chalmers I, Bracken MB, Djulbegovic B, Garattini S, Grant J, Gulmezoglu AM et al. *How to increase value and reduce waste when research priorities are set*. Lancet. 2014; 383(9912): 156-165.

The increase in annual global investment in biomedical research--reaching US$240 billion in 2010--has resulted in important health dividends for patients and the public. However, much research does not lead to worthwhile achievements, partly because some studies are done to improve understanding of basic mechanisms that might not have relevance for human health. Additionally, good research ideas often do not yield the anticipated results. As long as the way in which these ideas are prioritised for research is transparent and warranted, these disappointments should not be deemed wasteful; they are simply an inevitable feature of the way science works. However, some sources of waste cannot be

justified. In this report, we discuss how avoidable waste can be considered when research priorities are set. We have four recommendations. First, ways to improve the yield from basic research should be investigated. Second, the transparency of processes by which funders prioritise important uncertainties should be increased, making clear how they take account of the needs of potential users of research. Third, investment in additional research should always be preceded by systematic assessment of existing evidence. Fourth, sources of information about research that is in progress should be strengthened and developed and used by researchers. Research funders have primary responsibility for reductions in waste resulting from decisions about what research to do.

86. **ARTÍCULO Nº: 4047**

Ioannidis JP, Greenland S, Hlatky MA, Khoury MJ, Macleod MR, Moher D et al. ***Increasing value and reducing waste in research design, conduct, and analysis****. Lancet. 2014; 383(9912): 166-175.

Correctable weaknesses in the design, conduct, and analysis of biomedical and public health research studies can produce misleading results and waste valuable resources. Small effects can be difficult to distinguish from bias introduced by study design and analyses. An absence of detailed written protocols and poor documentation of research is common. Information obtained might not be useful or important, and statistical precision or power is often too low or used in a misleading way. Insufficient consideration might be given to both previous and continuing studies. Arbitrary choice of analyses and an overemphasis on random extremes might affect the reported findings. Several problems relate to the research workforce, including failure to involve experienced statisticians and methodologists, failure to train clinical researchers and laboratory scientists in research methods and design, and the involvement of stakeholders with conflicts of interest. Inadequate emphasis is placed on recording of research decisions and on reproducibility of research. Finally, reward systems incentivise quantity more than quality, and novelty more than reliability. We propose potential solutions for these problems, including improvements in protocols and documentation, consideration of evidence from studies in progress, standardisation of research efforts, optimisation and training of an experienced and non-conflicted scientific workforce, and reconsideration of scientific reward systems.

87. **ARTÍCULO Nº: 4048**

Al-Shahi SR, Beller E, Kagan J, Hemminki E, Phillips RS, Savulescu J et al. ***Increasing value and reducing waste in biomedical research regulation and management****. Lancet. 2014; 383(9912): 176-185.

After identification of an important research question and selection of an appropriate study design, waste can arise from the regulation, governance, and management of biomedical research. Obtaining regulatory and governance approval has become increasingly burdensome and disproportionate to the conceivable risks to research participants. Regulation and governance involve interventions that are assumed to be justified in the interests of patients and the public, but they can actually compromise these interests. Inefficient management of the procedural conduct of research is wasteful, especially if it results in poor recruitment and retention of participants in well designed studies addressing important questions. These sources of waste can be minimised if the following four recommendations are addressed. First, regulators should use their influence to reduce other causes of waste and inefficiency in research. Second, regulators and policy makers should work with researchers, patients, and health professionals to streamline and harmonise the laws, regulations, guidelines, and processes that govern whether and how research can be done, and ensure that they are proportionate to the plausible risks associated with the research. Third, researchers and research managers should increase the efficiency of recruitment, retention, data monitoring, and data sharing

in research through use of research designs known to reduce inefficiencies, and further research should be done to learn how efficiency can be increased. Finally, everyone, particularly those responsible for health-care systems, should promote integration of research into everyday clinical practice. Regulators and researchers should monitor adherence to each of these recommendations and publish metrics.

88. **ARTÍCULO Nº: 4049**

Porter AJ, Narimasu JY, Mulroy MF, Koehler RP. ***Sustainable, effective implementation of a surgical preprocedural checklist: an "attestation" format for all operating team members***. Jt.Comm J.Qual.Patient.Saf. 2014; 40(1): 3-9.

BACKGROUND: Adoption ofa preprocedural pause (PPP) associated with a checklist and a team briefing has been shown to improve teamwork function in operating rooms (ORs) and has resulted in improved outcomes. The format of the World Health Organization Safe Surgery Saves Lives checklist has been used as a template for a PPP. Performing a PPP, described as a "time-out," is one of the three principal components, along with a preprocedure verification process and marking the procedure site, of the Joint Commission's Universal Protocol for Preventing Wrong Site, Wrong Procedure, Wrong Person Surgery. However, if the surgeon alone leads the pause, its effectiveness may be decreased by lack of input from other operating team members. METHODS: In this study, the PPP was assessed to measure participation and input from operating team members. On the basis of low participation levels, the pause was modified to include an attestation from each member of the team. RESULTS: Preliminary analysis of our surgeon-led pause revealed only 54% completion of all items, which increased to 97% after the intervention. With the new format, operating team members stopped for the pause in 96% of cases, compared with 78% before the change. Operating team members introduced themselves in 94% of cases, compared with 44% before the change. Follow-up analysis showed sustained performance at 18 months after implementation. CONCLUSIONS: A preprocedural checklist format in which each member of the operating team provides a personal attestation can improve pause compliance and may contribute to improvements in the culture of teamwork within an OR. Successful online implementation of a PPP, which includes participation by all operating team members, requires little or no additional expense and only minimal formal coaching outside working situations.

89. **ARTÍCULO Nº: 4050**

Quinn GR, Le E, Soni K, Berger G, Mak YE, Pierce R. ***"Not so fast!" the complexity of attempting to decrease door-to-floor time for emergency department admissions***. Jt.Comm J.Qual.Patient.Saf. 2014; 40(1): 30-38.

BACKGROUND: Successful quality improvement is fundamental to high-performing health care systems, but becomes increasingly difficult as systems become more complex. Previous attempts at the University of California, San Francisco (UCSF) Medical Center to reduce door-to-floor (D2F) time -the time required to move an ill patient through the emergency department (ED) to an appropriate inpatient bed-had not resulted in meaningful improvement. An analysis of why attempts at decreasing D2F times in the ED had failed, with attention to contextual factors, yields recommendations on how to decrease D2F time. METHODS: A team of 11 internal medicine residents, in partnership with the Patient Flow Executive Steering Committee, performed a literature review, process mapping, and analysis of the admissions process. The team conducted interviews with medical center staff across disciplines, members of high-performing patient care units, and leaders of peer institutions who had undertaken similar efforts. FINDINGS AND RECOMMENDATIONS: Each of the following three

domains-(1) Improving Work Flow, (2) Changing Culture, and (3) Understanding Incentives-is independently an important source of resistance and opportunity. However, the improvement work and understanding of complexity science suggest that all three domains must be addressed simultaneously to effect meaningful change. Recommendations include eliminating redundant and frustrating processes; encouraging multidisciplinary collaboration; fostering trust between departments; providing feedback on individual performance; enhancing provider buy-in; and, ultimately, uniting staff behind a common goal. CONCLUSION: By conceptualizing the hospital as a complex adaptive system, multiple interrelated groups can be encouraged to work together and accomplish a common goal.

90. **ARTÍCULO Nº: 4051**

Alemi F, Jasper H. *An alternative to satisfaction surveys: let the patients talk.* Qual.Manag.Health Care. 2014; 23(1): 10-19.

We propose to replace the standardized 27-item hospital version of the Consumer Assessment of Healthcare Providers and Systems (CAHPS) survey with 1-item questionnaire that asks "What worked well and what needs improvement?" Sentiment analysis can take the responses to this single question and reconstruct a report on frequency of dissatisfied customers and reasons for dissatisfaction similar to reports received from longer surveys. This article shows, by way of an example, how benchmarked and quantitative reports can be generated from patients' comments. The CAHPS survey asks more leading questions, is less granular in its feedback, has lower response rate, has costly repeated reminders, and may not be as timely as sentiment analysis of a single, open-ended question. This article also shows the implementation of the proposed approach in one critical access hospital and its affiliated clinic and calls for additional research to compare sentiment analysis and CAHPS satisfaction surveys.

91. **ARTÍCULO Nº: 4052**

Regenstein M, Andres E. *Reducing hospital readmissions among medicaid patients: a review of the literature.* Qual.Manag.Health Care. 2014; 23(1): 20-42.

Reducing hospital readmissions is a key approach to curbing health care costs and improving quality and patient experience in the United States. Despite the proliferation of strategies and tools to reduce readmissions in the general population and among Medicare beneficiaries, few resources exist to inform initiatives to reduce readmissions among Medicaid beneficiaries. Patients covered by Medicaid also experience readmissions and are likely to experience distinct challenges related to socioeconomic status. This review aims to identify factors related to readmissions that are unique to Medicaid populations to inform efforts to reduce Medicaid readmissions. Our search yielded 254 unique results, of which 37 satisfied all review criteria. Much of the Medicaid readmissions literature focuses on patients with mental health or substance abuse issues, who are often high utilizers of health care within the Medicaid population. Risk factors such as medication noncompliance, postdischarge care environments, and substance abuse comorbidities increase the risk of readmission among Medicaid patients.

92. **ARTÍCULO Nº: 4053**

Qaseem A, Hopkins RH, Jr., Sweet DE, Starkey M, Shekelle P. *Screening, monitoring, and treatment of stage 1 to 3 chronic kidney disease: A clinical practice guideline from the American College of Physicians.* Ann.Intern.Med. 2013; 159(12): 835-847.

DESCRIPTION: The American College of Physicians (ACP) developed this guideline to present the evidence and provide clinical recommendations on the screening, monitoring, and treatment of adults with stage 1 to 3 chronic kidney disease. METHODS: This guideline is based on a systematic evidence review evaluating the published literature on this topic from 1985 through November 2011 that was identified by using MEDLINE and the Cochrane Database of Systematic Reviews. Searches were limited to English-language publications. The clinical outcomes evaluated for this guideline included all-cause mortality, cardiovascular mortality, myocardial infarction, stroke, chronic heart failure, composite vascular outcomes, composite renal outcomes, end-stage renal disease, quality of life, physical function, and activities of daily living. This guideline grades the evidence and recommendations by using ACP's clinical practice guidelines grading system. RECOMMENDATION 1: ACP recommends against screening for chronic kidney disease in asymptomatic adults without risk factors for chronic kidney disease. (Grade: weak recommendation, low-quality evidence) RECOMMENDATION 2: ACP recommends against testing for proteinuria in adults with or without diabetes who are currently taking an angiotensin-converting enzyme inhibitor or an angiotensin II-receptor blocker. (Grade: weak recommendation, low-quality evidence) RECOMMENDATION 3: ACP recommends that clinicians select pharmacologic therapy that includes either an angiotensin-converting enzyme inhibitor (moderate-quality evidence) or an angiotensin II-receptor blocker (high-quality evidence) in patients with hypertension and stage 1 to 3 chronic kidney disease. (Grade: strong recommendation) RECOMMENDATION 4: ACP recommends that clinicians choose statin therapy to manage elevated low-density lipoprotein in patients with stage 1 to 3 chronic kidney disease. (Grade: strong recommendation, moderate-quality evidence).